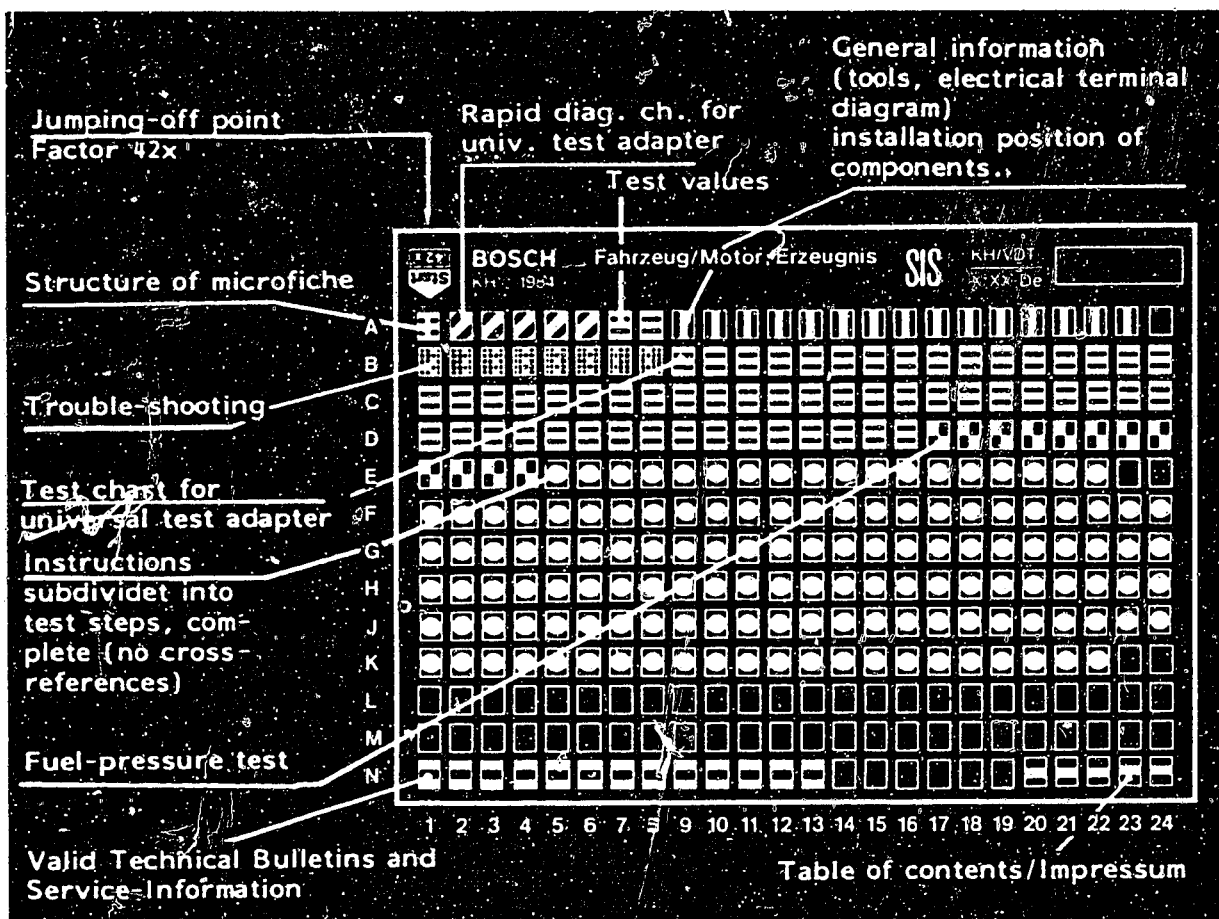
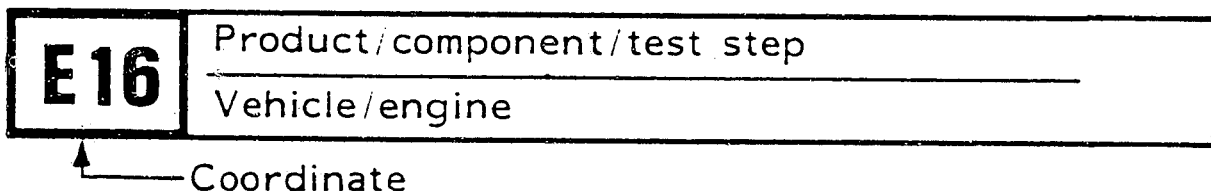


## Structure of microfiche



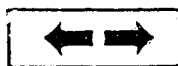
1. Read from left to right
2. Title of microfiche (appears on each coordinate)



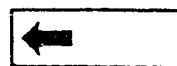
3. Limits of section



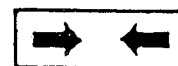
Beginning



Mid-section



End



One-page section

4. Purely vehicle-specific passages in the text are marked with a vertical bar.

5. Reference to relevant working steps in the test specifications, e.g. coordinate C6.



Trouble-shooting program



## RAPID DIAGNOSIS CHART FOR THE UNIVERSAL TEST ADAPTER

This rapid diagnosis chart makes it possible for the experienced L-Jetronic technician to check the electrical portion of the system quickly using the universal test adapter.

The rapid diagnosis chart contains the following information:

- Switch positions on universal adapter
- Sequence of test steps
- Notes on how to operate the universal adapter or other components
- Readings on the multimeter
- References to coordinates of the relevant detailed testing and trouble-shooting program.

If detailed information and instructions are necessary, always proceed according to the trouble-shooting program starting on Coordinate B 1/B 2.





# Rapid diagnosis chart for the universal test adapter

<u>Test step</u>	<u>Switch position</u>		<u>Remarks</u>	<u>Test specifications (reading)</u>	<u>See Coordinates for trouble-shooting</u>
	V	Ω			
1	3	-	Shift gear to neutral. Operate starting motor. Measure voltage.	8...15 V	B 11
2	4	-	Shift gear to neutral. Operate starting motor. Measure voltage.	8...15 V	B 15
3	5	-	Shift gear to neutral. Operate starting motor. Measure voltage pulses with motortester.(not applicable for vehicles with TD-triggering).	Ignition pulses on motortester	B 19
4	6	-	Ignition "ON". Measure voltage.	8...15 V	B 21
5	7	-	Ignition "ON". Measure voltage.	8...15 V	B 23
6	8	-	Ignition "ON". Measure voltage.	8...15 V	C 3
7	9	-	Ignition "ON". Measure voltage.	8...15 V	C 7
8	10	-	Ignition "ON". Measure voltage.	8...15 V	C 11
9	11	-	Ignition "ON". Deflect air-flow sensor flap. Measure voltage.	8...15 V	C 15
10	15	-	Shift into neutral. Operate the starting motor. Measure voltage pulses using Motortester (not for vehicles with Term.1 triggering)	Rectangular pulses	C 19

**A3**

Rapid diag.chart for the univ.test adapter  
Citroen CX GTI/Prestige/Pallas












**A4**

Rapid diag.chart for the univ.test adapter  
Citroen CX GTI/Prestige/Pallas



# Rapid diagnosis chart for the universal test adapter

Test step	Switch setting		Remarks	Test specifications (reading)	For trouble-shooting, see coordinates
	V	$\Omega$			
11		6	Measure resistance. Deflect the sensor flap in the air-flow sensor.	40 ... 300 $\Omega$	C 21
12		7	Measure resistance.	130 ... 260 $\Omega$	C 23
13		8	Measure resistance.	200 ... 400 $\Omega$	D 1
14		9	Measure resistance. Gas pedal in rest position.	0 ... 10 $\Omega$	D 3
15		10	Step on the gas pedal (full load position). Measure resistance.	0 ... 10 $\Omega$	D 6
16		11	Measure resistance.	+15°C ... +30°C: 1.45 ... 3.3 k $\Omega$ +80°C: 280 ... 360 $\Omega$	D 8
17		12	Measure resistance.	+15°C ... +30°C: 1.3 ... 3.6 k $\Omega$ +80°C: 250 ... 390 $\Omega$	D 10
18		13	Measure resistance.	0 ... 10 $\Omega$	D 12
19		14	Measure resistance.	0 ... 10 $\Omega$	D 14

**A5**

Rapid diag.chart for the univ.test adap.  
Citroen CX GTI/Prestige/Pallas



**A6**

Rapid. diag.chart for the univ.test adap.  
Citroen CX GTI/Prestige/Pallas



## TEST SPECIFICATIONS

**B7**

### Idle speed

Manual transmissions: 850...900 min<sup>-1</sup>

Automatic transmissions  
(selector level in position  
"D" and parking brake on): 800...850 min<sup>-1</sup>

Exhaust adjustment, CO level  
(with engine at normal operating temperature) 0.8...1.5 vol. % CO

Fuel pressure 2.3...2.7 bar

Fuel pump delivery min. 700 cm<sup>3</sup>/30 s

### Solenoid-operated injection valve

Internal resistance: 2.0...3.0 Ω

Series resistor 5.0...7.0 Ω

### Temperature sensor Internal resistance:

	NTC I (air)	NTC II (engine)
Ambient temperature (approx. +15°C...+30°C):	1.45...3.3 kΩ	1.3...3.6 kΩ
Eng. at op. temp. (approx. +80°C):	280 ... 360 Ω	250 ... 390 Ω

### Start valve

Internal resistance: 3.5...4.5 Ω

### Auxiliary-air device

Internal resistance: 30...65 Ω

**B5****A7**

Test specifications

Citroen CX GTI/Prestige/Pallas



## Thermo-time switch

**B7**

Internal resistance:

	Between Term. "G" and ground	Between Term. "W" and ground	Between Term. "G" and "W"
Ambient temperature (less than +30°C)	25...40 $\Omega$	0 $\Omega$	25...40 $\Omega$
Eng. at op. temp. (above +40°C)	50...80 $\Omega$	100...160 $\Omega$	50...80 $\Omega$

## Air-flow sensor

Internal resistance

**B5**

Term. 6 to term. 9	200 ... 400 $\Omega$
Term. 6 to term. 8	130 ... 260 $\Omega$
Term. 8 to term. 9	70 ... 140 $\Omega$
Term. 6 to term. 7	40 ... 300 $\Omega$ *
Term. 7 to term. 8	100 ... 500 $\Omega$ *

\* Value shown changes when the air-flow sensor flap is deflected

## Relay set

Measurement of resistance between Term. 86b (positive) and Term. 85:

**B5**

0 332 514 103:	50...110 $\Omega$
0 332 514 120 (as of 9.79):	70...500 $\Omega$
0 332 514 130 (as of 1.82):	70...500 $\Omega$

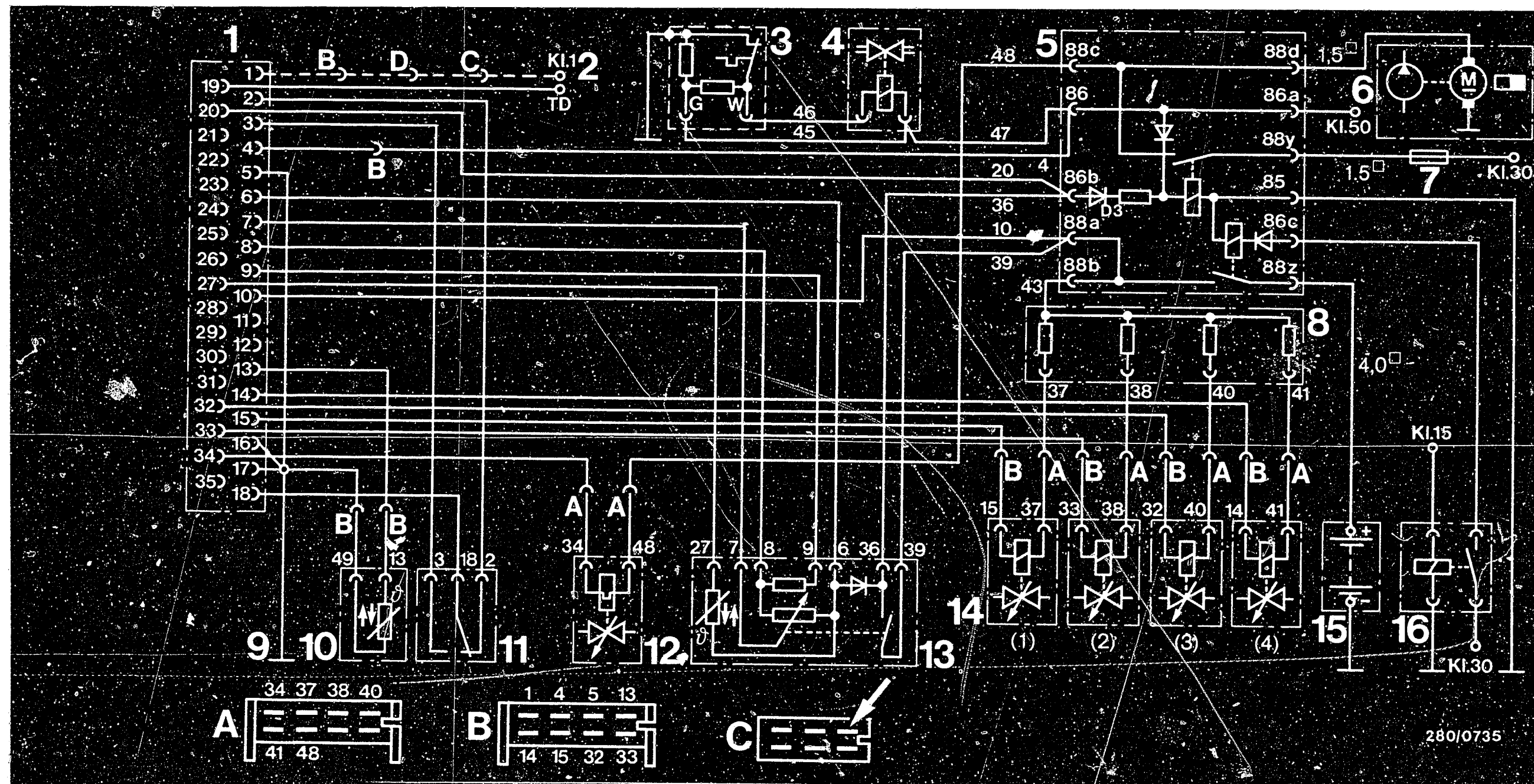
For setting values for ignition, valve clearance, and other engine data, see the equipment and Auto data microfiches.

**A8**

Test specifications

Citroen CX GTI/Prestige/Pallas





# ELECTRICAL TERMINAL DIAGRAM OF THE L-JETRONIC

- 1 = Control unit plug
- 2 = Either Term. 1 (separate lead) or TD-connection
- 3 = Thermo-time switch
- 4 = Start valve
- 5 = Relay set (diode D3 as of FD 146)
- 6 = Electric fuel pump

- 7 = Pump fuse
- 8 = Series resistors
- 9 = Central ground
- 10 = Temperature sensor
- 11 = Throttle-valve switch
- 12 = Auxiliary-air device
- 13 = Air-flow sensor (diode as of FD 052)
- 14 = Injection valves

- 15 = Battery
- 16 = Relief relay
- A = Plug connection (white)
- B = Plug connection (yellow)
- C = Plug connection
- Arrow lead 1
- Individual plug connection D between plug connection B and C

**A9**

Electrical terminal diagram  
Citroen CX GTI/Prestige/Pallas



**A10**

Electrical terminal diagram  
Citroen CX GTI/Prestige/Pallas



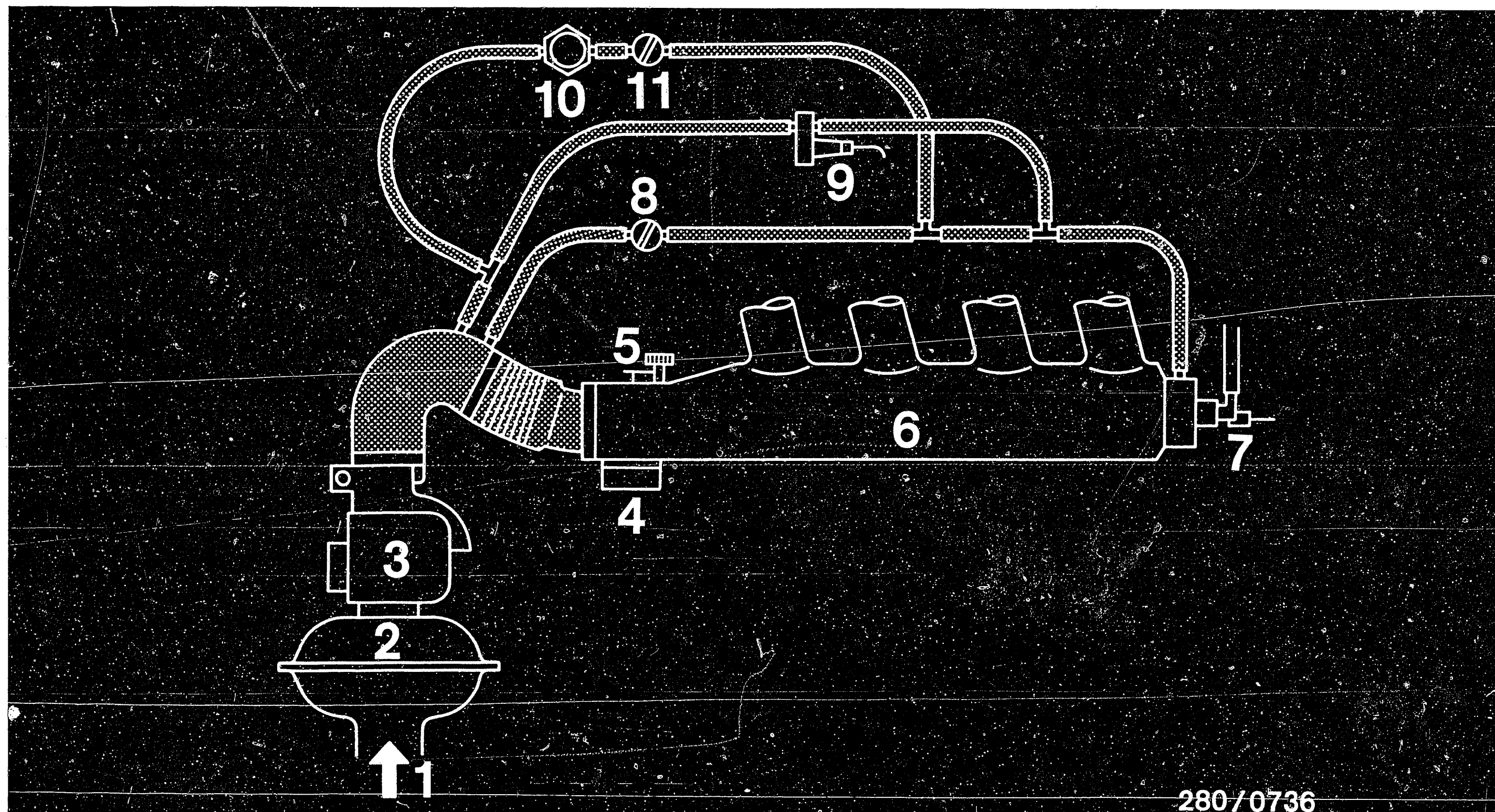


DIAGRAM OF AIR HOSES

- 1 = Air intake
- 2 = Air filter
- 3 = Air-flow sensor
- 4 = Throttle valve switch

- 5 = Throttle valve adjusting eccentric
- 6 = Intake manifold
- 7 = Start valve
- 8 = Idle-air screw
- 9 = Auxiliary-air device

- 10 = Solenoid-operated air valve; installed only with an air conditioner
- 11 = Setting screw for air, for solenoid-operated air valve

**A11**

Diagram of air hoses

Citroen CX GTI/Prestige/Pallas



**A12**

Diagram of air hoses

Citroen CX GTI/Prestige/Pallas



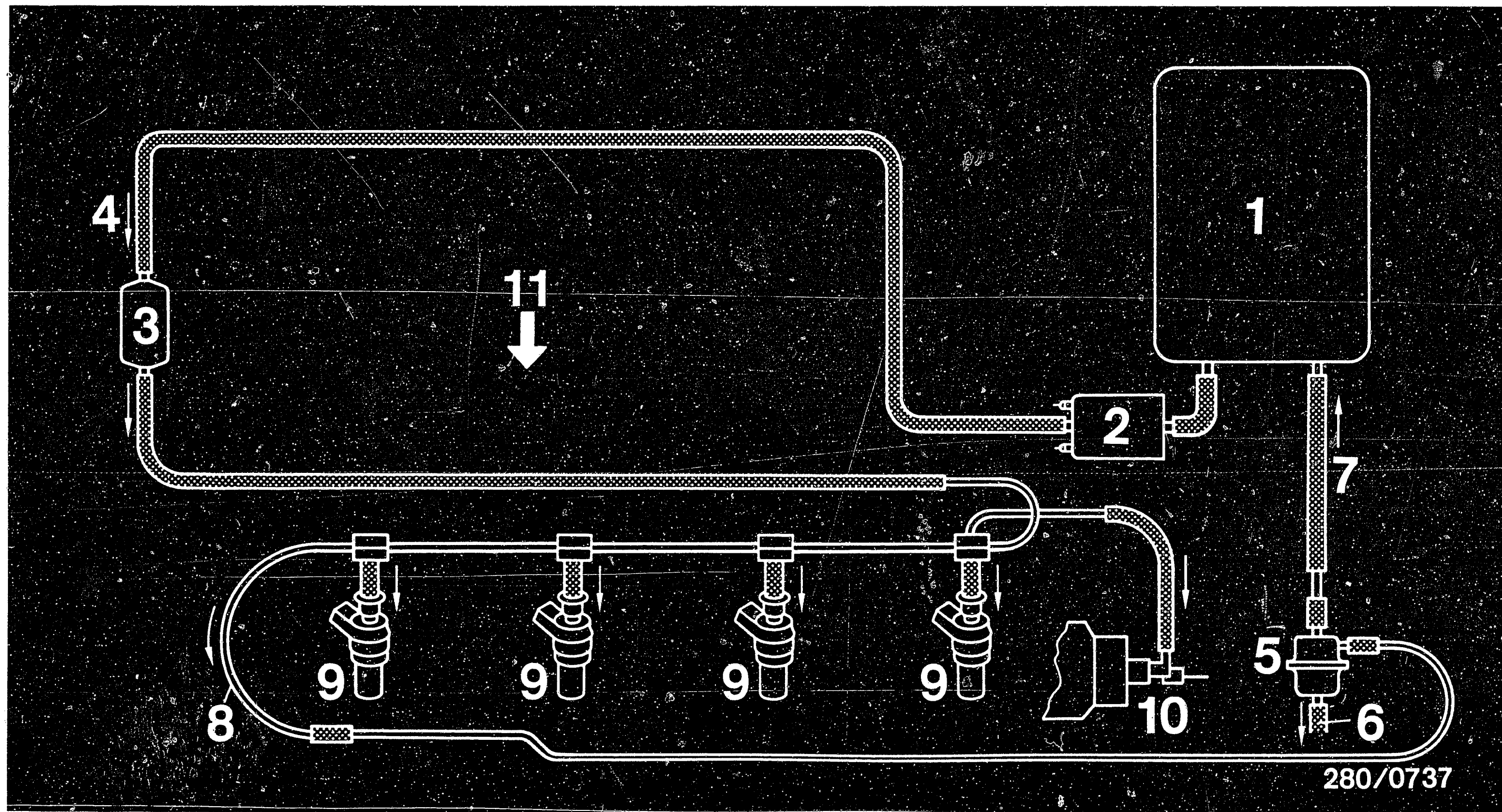


DIAGRAM OF FUEL LINES

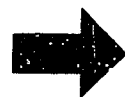
1 = Fuel tank  
 2 = Electric fuel pump  
 3 = Fuel filter  
 4 = Fuel delivery line

5 = Pressure regulator  
 6 = To the intake manifold  
 7 = Fuel return line  
 8 = Fuel ring main (as of 9.80, fuel distributor pipe)

9 = Fuel-injection valves  
 10 = Start valve  
 11 = Forward direction of travel  
 Arrows = Direction of fuel flow

**A13**

Diagram of fuel lines  
 Citroen CX GTI/Prestige/Pallas



**A14**

Diagram of fuel lines  
 Citroen CX GTI/Prestige/Pallas





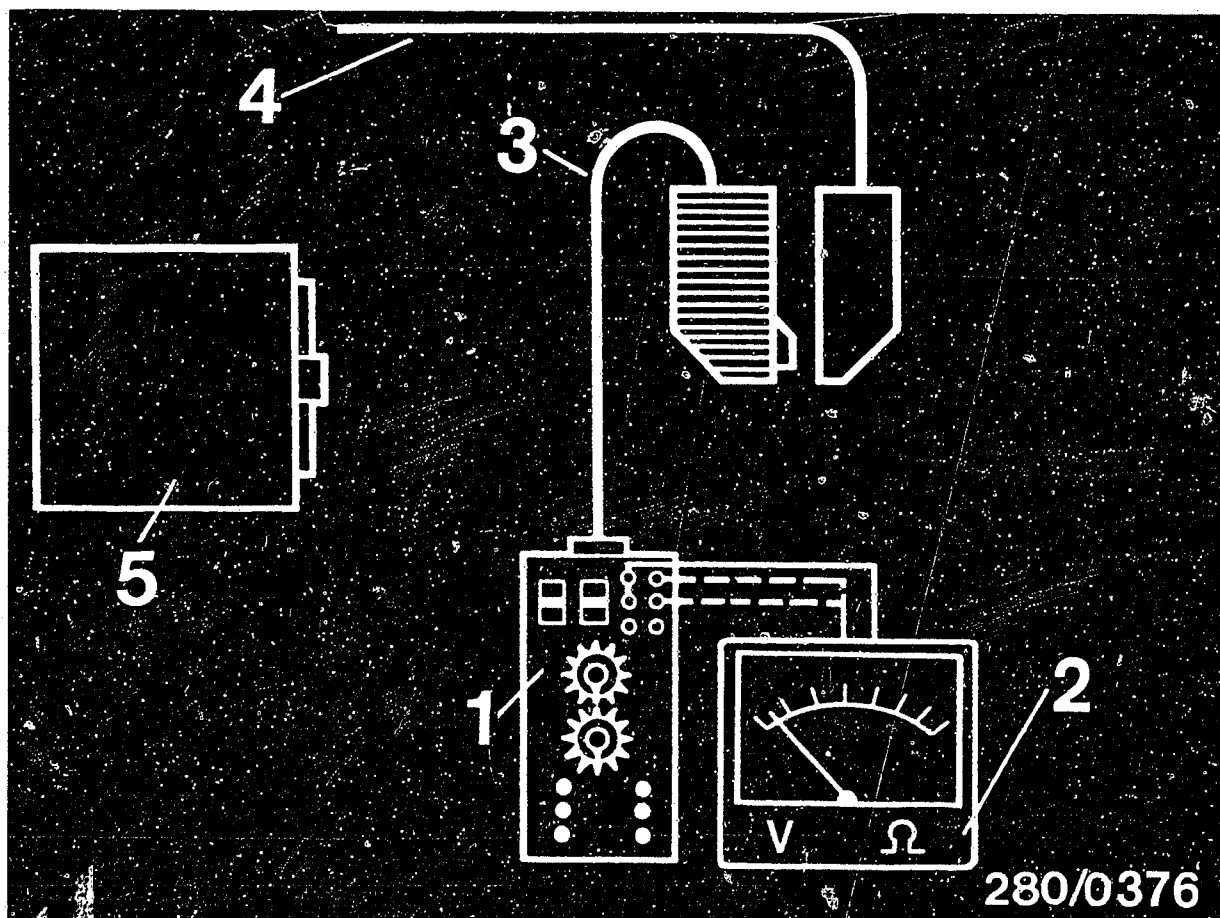
## TEST EQUIPMENT AND TOOLS

Description	Designation	Part No.
Universal test adapter	ETT 018.01	0 684 101 801
Adapter lead		1 684 463 129
Motortester	e.g. MOT 002.00 MOT 300 MOT 400	1 684 000 200 0 684 000 300 0 684 000 400
Exhaust-emission analyzer	e.g. ETT 008.00	0 684 100 800
Calibrated infrared exhaust gas analyzers	ETT 008.04 or ETT 008.05	0 684 100 804 0 684 100 805
Pressure gauge	Quality class 1.0=6 bar Graduation 0.1 bar	1 687 231 154
Three-way line		KDJE-P-100/13
Test lead		1 684 463 093
Pressure tester or Pressure tester (no longer available)		KDJE-P 100  KDEP-1034
Clamping fixture		1 688 120 093
Assembly mandrel		1 687 931 003
Parts set		1 287 010 701
Electrical system tester or multitester	e.g. ETE 014.00  e.g. Philips PM 2517 X e.g. Misco Master 50 K e.g. Chinaglia Cortina	0 684 101 400
Solenoid-operated injection valve		0 280 150 151 or 0 280 150 154
Hex. screwdriver AF 5		Commercially available

Use suitable, commercially available tools for fitting on and removing the idle CO anti-tamper device of the air-flow sensor.







- |                               |                             |
|-------------------------------|-----------------------------|
| 1 = Universal test adapter    | 4 = Vehicle wiring harness  |
| 2 = Multimeter                | 5 = L-Jetronic control unit |
| 3 = Adapter lead (L-Jetronic) |                             |

General information:

Connect adapter lead to the universal test adapter and to the multiple plug of the L-Jetronic wiring harness.

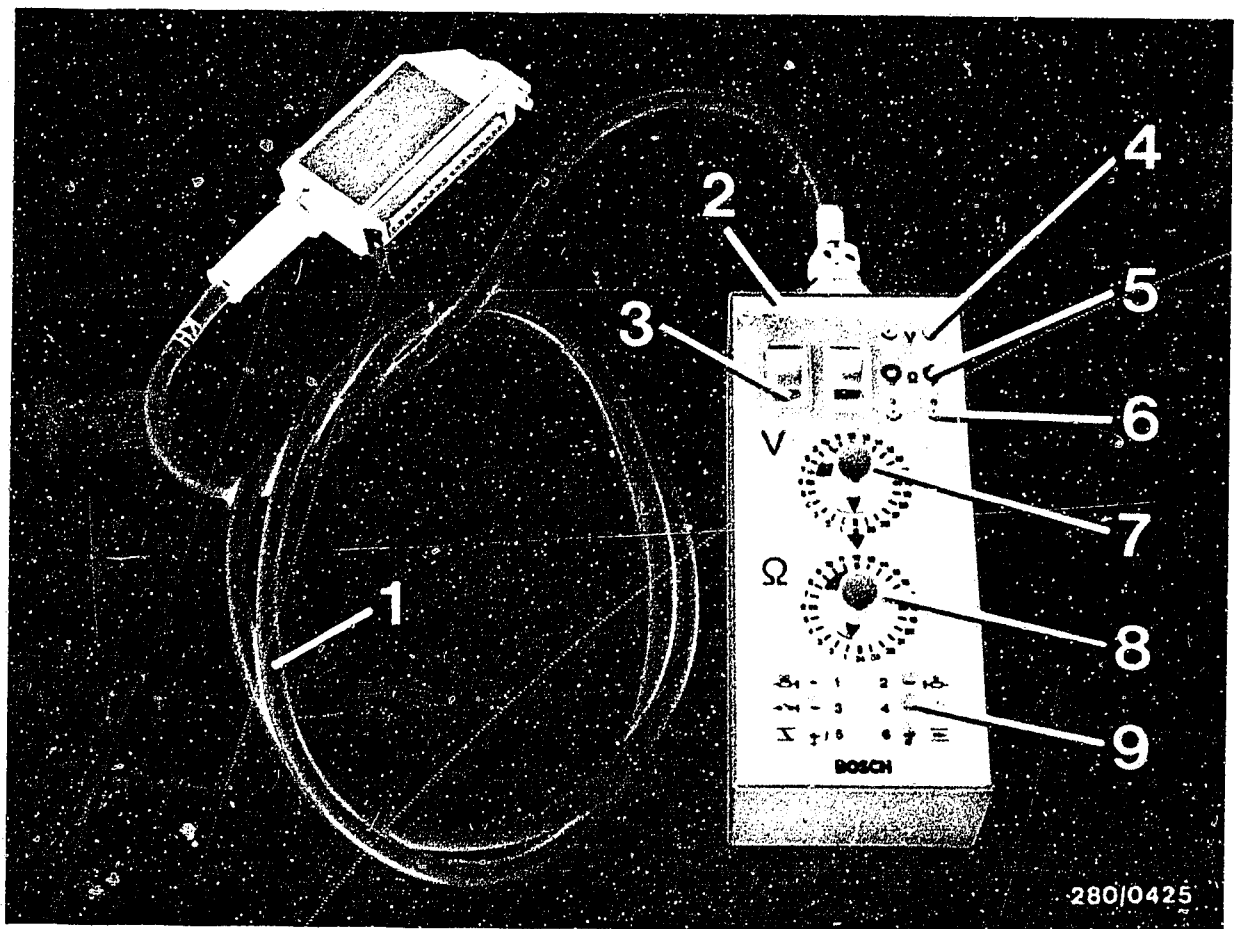
Caution:

Connect and disconnect the universal test adapter only with the ignition off:

Testing:

For testing, connect a multimeter with  $R_i$  min. 20 k $\Omega$ /V to the test adapter.

It is also possible for the signal from term. 1 of the ignition coil to be measured with a motortester via the special input.



### Universal test adapter with adapter lead for L-Jetronic

- 1 = adapter lead (part No.: 1 684 463 129)
- 2 = universal adapter (part No.: 0 684 101 801)
- 3 = test wells (for motortester)
- 4 = test sockets (for voltage measurement)
- 5 = test sockets (for resistance measurement)
- 6 = test sockets (not yet occupied)
- 7 = program switch "volt"
- 8 = program switch "ohm"
- 9 = button panel (not occupied for L-Jetronic)



## INSTALLATION POSITION OF THE COMPONENTS

Indications for installation position are always given looking in the forward direction of travel

### Control unit

The control unit is located behind a cover on the left in the driver's footwell.

### Removal of the control unit:

- Unscrew the screws on the bottom panel of the instrument panel (top diagram - arrows).
- Take the spare wheel out of the engine compartment.
- Release the fastening nuts (middle diagram - arrows).  
In order to remove the third fastening nut, the hydraulic fluid reservoir (1) must be shoved to one side. To do this, take off the fastening bracket (middle diagram - item 2).  
On re-installation, put the rubber ring back in under the reservoir.
- Once the nut has been removed (middle diagram - arrow), the cover (bottom diagram - item 3) and the control unit can be taken out.  
If the control unit has to be taken out, remove the retaining bracket (item 4) from the control unit.

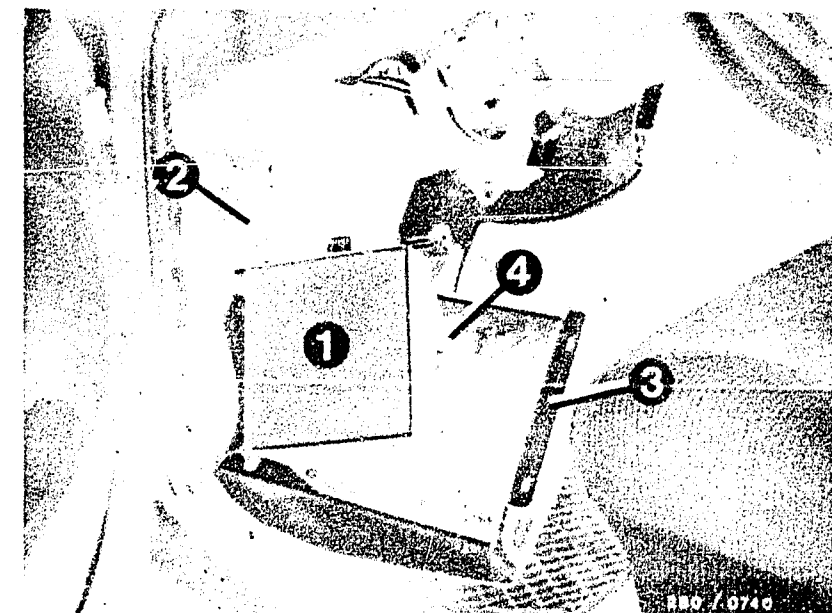
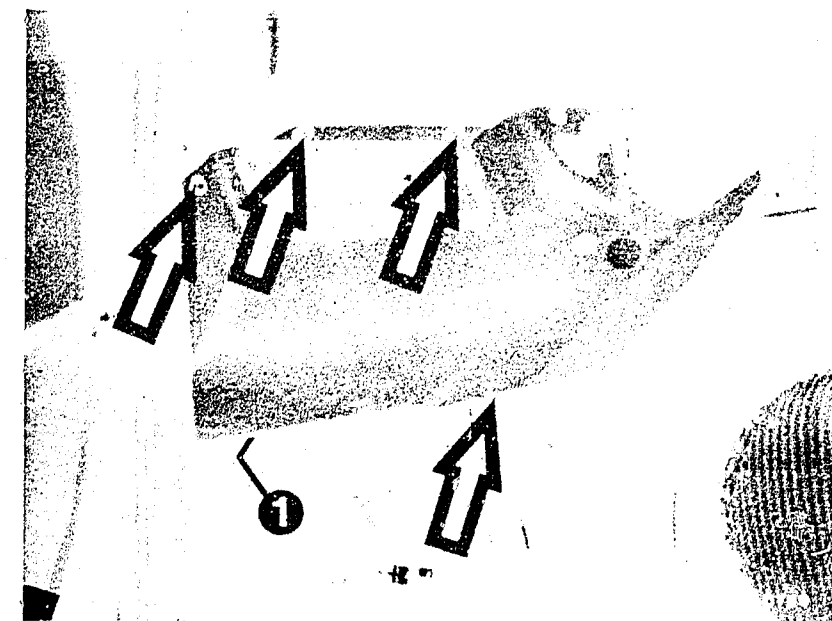
### Connect the universal test adapter:

The multiple plug is accessible through the opening (top diagram - item 1).  
Release the lock by pressing on the spring with your finger.

Disconnect the plug.

Connect the universal test adapter between the control unit and the Jetronic wiring harness.

Bottom diagram: 1 = Control unit  
2 = Jetronic wiring harness



**A18**

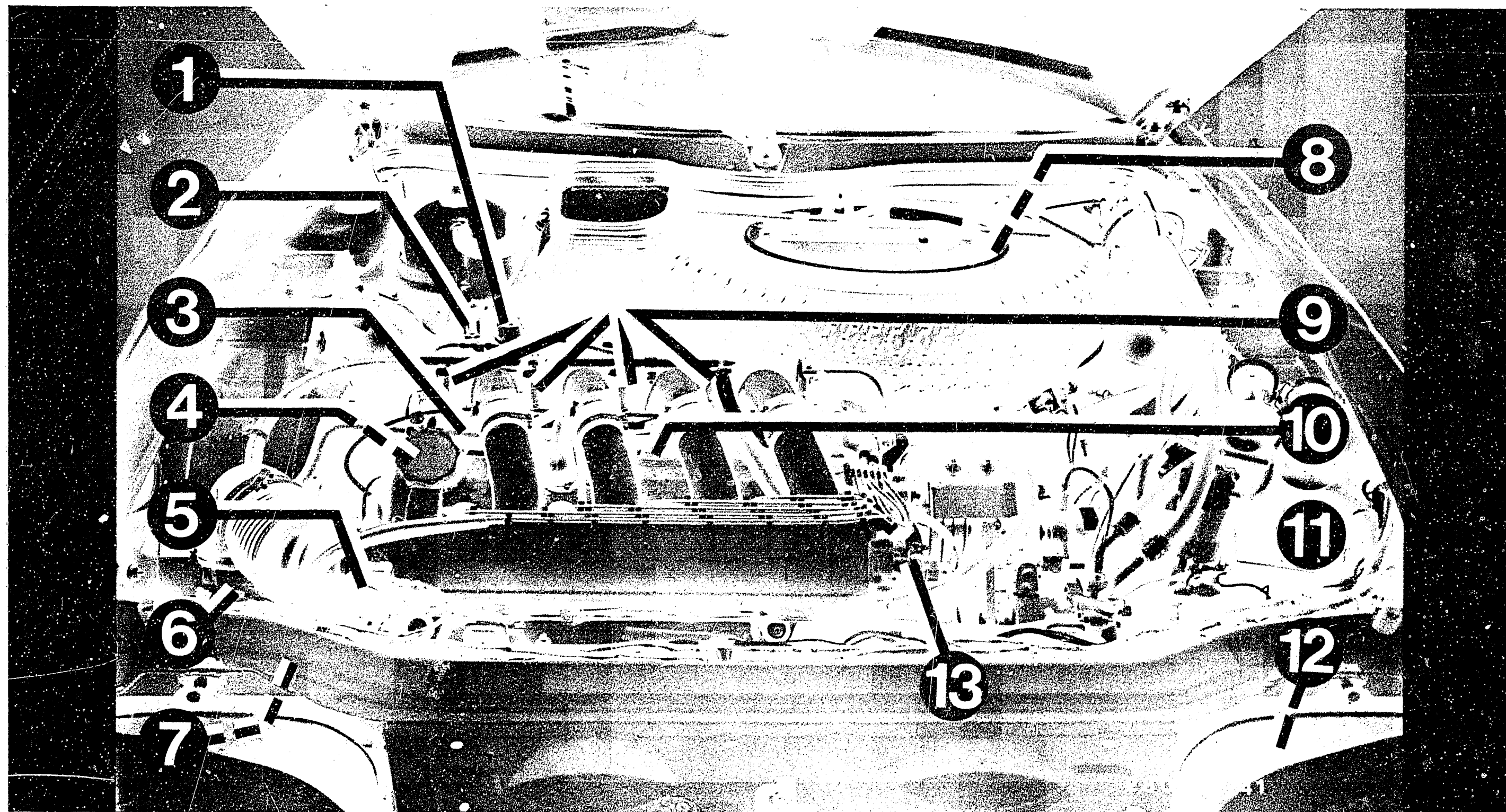
Installation position of the components  
Citroen CX GTI/Prestige/Pallas



**A19**

Installation position of the components  
Citroen CX GTI/Prestige/Pallas





# Installation position of the components (continued)

- |                                 |                           |                           |                  |
|---------------------------------|---------------------------|---------------------------|------------------|
| 1 = Pressure regulator          | 5 = Throttle valve switch | 9 = Injection valves      | 13 = Start valve |
| 2 = Solenoid-operated air valve | 6 = Air-flow sensor       | 10 = Auxiliary-air device |                  |
| 3 = Thermo-time switch          | 7 = Air filter            | 11 = Central ground       |                  |
| 4 = Temperature sensor          | 8 = Series resistors      | 12 = Relay set            |                  |

**A20**

Installation position of the components  
Citroen CX GTI/Prestige/Pallas



**A21**

Installation position of the components  
Citroen CX GTI/Prestige/Pallas



Electric fuel pump:

Under the vehicle on the right, behind the cross-tie (near the right rear wheel)

Fuel filter:

Under the pressure regulator on the right in the engine compartment.

Electric fuel pump fuse:

Red fuse for Term. 2 ignition lock in the fuse box.

Plug connections  
A, B, and C:

Under a sheet metal cover below the spare wheel in the engine compartment.

Ground connection for  
the electric fuel pump:

Up to 8.81 model:  
Clamping location on the right tank suspension.  
As of 9.81 model:  
At the right rear on the tail-light.

Ignition trigger box:

In the glove compartment



## Important general information

1. Never start engine without securely connected battery.
2. Do not use a starting aid with more than 16 V or a fast charger for starting.
3. Never disconnect battery from vehicle electrical system with engine running.
4. Disconnect battery from vehicle electrical system when fast charging.
5. Remove control unit at temperatures above 80°C (paint drying installation).
6. Ensure that all connectors of wiring harness are properly attached.
7. Never connect or disconnect wiring-harness plug of control unit with ignition switched on.
8. When testing compression, cut the red power supply lead between battery and relay set by disconnecting the plug-in connection.  
This ensures that the voltage supply for the L-Jetronic and therefore also for the injection valves is interrupted. Undesired injecting is thus prevented.
9. Remove the L-Jetronic control unit before carrying out electric welding work (e.g. spot welding).
10. When using the following trouble-shooting program it is assumed that the engine is in proper working order and that the ignition is correctly set. The electrical system must be checked and, if necessary, repaired.
11. Proceed according to microcard ALL-500 when installing an alarm system.

In order to carry out the testing operations described in this manual and in order to assess the components, you should be familiar with the L-Jetronic and how it works. The essential points regarding the operation and construction of the L-Jetronic are described in Technical Instruction VDT-U 3/3 En.



## Trouble-shooting

The following trouble-shooting programs are designed to enable workshop employees, using the universal test adapter with adapter lead (1 684 463 129) and other suitable test equipment, to quickly locate causes of trouble on the L-Jetronic. Depending on the level of knowledge and experience of the mechanic, a choice can be made between the following procedures:

- Detailed step-by-step trouble-shooting for employees with little experience or practice on L-Jetronic vehicles.
- Pin-pointed direct trouble-shooting for trained, experienced employees who have had a great deal of practice on L-Jetronic vehicles.

Both trouble-shooting programs begin by checking the electrical/electronic part of the L-Jetronic with the aid of the universal test adapter with adapter lead. In this way, the wiring harness with the connected components (including unit) is soon checked for proper electrical operation and faults are quickly located.

If no fault is found using the universal test adapter, it is necessary to test the fuel pressure.

If no fault is found, continue trouble-shooting with the detailed or the direct trouble-shooting program.

**B3**

**B5**

**B1**

Trouble-shooting  
Citroen CX GTI/Prestige/Pallas



**B2**

Trouble-shooting  
Citroen CX GTI/Prestige/Pallas





## 1. Detailed step-by-step trouble-shooting

### 1.1 Test with universal test adapter

This test must come at the beginning of the test program and must be performed from beginning to end (Coordinates B 9...D 16).

### 1.2 Fuel pressure test

This test must come immediately after the test with the universal test adapter and must be performed from beginning to end (Coordinates D 17...E 4).

### 1.3 Trouble-shooting according to customer complaints (symptoms of trouble)

The table below contains possible symptoms of trouble and gives the first coordinate of the relevant detailed trouble-shooting program in the column on the right.

The trouble-shooting program consists of logically ordered test procedures for all individual components of the L-Jetronic. If, after completing the trouble-shooting program for an assumed trouble, the fault has not been detected or remedied, take a new symptom of the trouble and work through another program.

<u>Customer complaints (symptoms of trouble)</u>	<u>Universal test adapter</u>	<u>Fuel pressure test</u>	<u>Coordinates</u>
1. Engine fails to start or starts only with great difficulty	B 9	D 17	E 5
2. Engine starts but then dies	B 9	D 17	F 1
3. Uneven engine idle	B 9	D 17	F 15
4. Poor throttle take-up	B 9	D 17	G 13
5. Engine missing under all operating conditions	B 9	D 17	H 13
6. Fuel consumption too high	B 9	D 17	H 21
7. No maximum engine power	B 9	D 17	J 17
8. CO concentration at idle too high or too low	B 9	D 17	K 11

**B3**

Trouble-shooting

Citroen CX GTI/Prestige/Pallas

**B4**

Trouble-shooting

Citroen CX GTI/Prestige/Pallas





## 2. Pin-pointed direct trouble-shooting

### 2.1 Test with universal test adapter

The test with the universal test adapter must come at the beginning of the test program and must be performed from beginning to end (Coordinates B 9...D 16).

### 2.2 Fuel pressure test

The fuel pressure test must come immediately after the test with the universal test adapter and must be performed from beginning to end (Coordinates D 17...E 4).

### 2.3 Trouble-shooting according to customer complaints

The table below contains various symptoms of trouble with several possible causes of the trouble in each case. The Coordinate reference field indicates the first coordinate of the test procedure for the respective L-Jetronic component. If, after testing the individual components, the fault has not been detected or remedied, chose a new symptom of the trouble.

#### Customer complaint (symptom of trouble)

1. Engine fails to start or starts only with great difficulty
  2. Engine starts but then dies
  3. Uneven engine idle, idle speed incorrect
  4. Poor throttle take-up
  5. Engine missing under all operating conditions
  6. Fuel consumption too high
  7. No maximum engine power
  8. CO concentration at idle too high or too low
- Cause (component fault)

B9	B9	B9	B9	B9	B9	B9	B9	Universal test adapter
D17	D17	D17	D17	D17	D17	D17	D17	Fuel pressure test, pressure regulator defective, relay set defective, fuel pump not operating, pump contact does not close.
E15	F5		G17					Auxiliary-air device does not open
		G3						Auxiliary-air device does not close
E19	F9	G7	G19	H9	J13	K1	K15	Air-flow sensor defective, potentiometer test (noise test)
	F9			H9				Pump contact in the air-flow sensor defective (motor at standstill)
	F11	F19						Solenoid-operated air valve defective

**B5**

Trouble-shooting

Citroen CX GTI/Prestige/Pallas

**B6**

Trouble-shooting

Citroen CX GTI/Prestige/Pallas



# Customer complaints (symptoms of trouble)

1. Engine does not start or starts only with difficulty

2. Engine starts and then dies

3. Rough idle, idle speed incorrect

4. Poor throttle take-up

5. Motor missing under all driving conditions

6. Fuel consumption too high

7. No maximum engine power

8. CO-level at idle too high or too low

Cause (component defect)

E13		F23						Thermo-time switch defective
E21	F13	G9	G23			K9	K21	Intake system leaks
		G5		H7	J3			Solenoid-operated injection valves defective, connect test lead
					J7			Take out and replace solenoid-operated injection valves
E7								Start valve does not open
E11	F3	G1			H23		K17	Start valve leaks
				H15		J23		Fuel delivery insufficient
E17	F7				J1		K17	Temperature sensor II in the engine defective
		F17	G15					Throttle valve does not close
						J21		Throttle valve does not open completely
				H5		K9		Poor central ground, loose contacts, defective plug connections
		G5		H7				Wiring harness and plug connections have open circuit, interference
			G15			J21		Throttle valve switch defective
		G11	H1		J15		K13	CO-exhaust adjustment too rich, idle adjustment
			H1	H17			K13	CO-exhaust adjustment too lean, idle adjustment, sputtering
				H17				Control unit defective

**B7**

Trouble-shooting

Citroen CX GTI/Prestige/Pallas



**B8**

Trouble-shooting

Citroen CX GTI/Prestige/Pallas



TEST CHART FOR UNIVERSAL TEST ADAPTER  
with connected L-Jetronic system adapter lead  
(1 684 463 129)

Test chart for Citroen CX GTI/Prestige/Pallas

Disconnect multiple plug from control unit and connect to plug of adapter lead (ignition must be off). Only the peripherals are tested.

To make the measurements, connect a multimeter for voltage and resistance measurements as well as a motor-tester to the universal test adapter.

The individual test steps are selected by means of two program switches (one for voltage measurements, the other for resistance measurements). Each program switch has 24 test positions, but not all of these are occupied for the L-Jetronic. Be sure to follow the instructions in the test chart.

Test steps 1...10 measure voltages during starting.  
Caution: Set the multimeter to the voltage range.

Test steps 11...19 measure resistances.  
Caution:

Set the multimeter to the resistance measuring range.

While trouble-shooting, ignition "OFF" and remove multiple plug of adapter lead.

The test specifications and operating instructions for the universal test adapter are given in the following test chart.

Installation position of the control unit

The control unit is located in the driver's footwell in the passenger compartment behind a cover. It is fastened with 3 screws.



Requirements for correct test procedure:

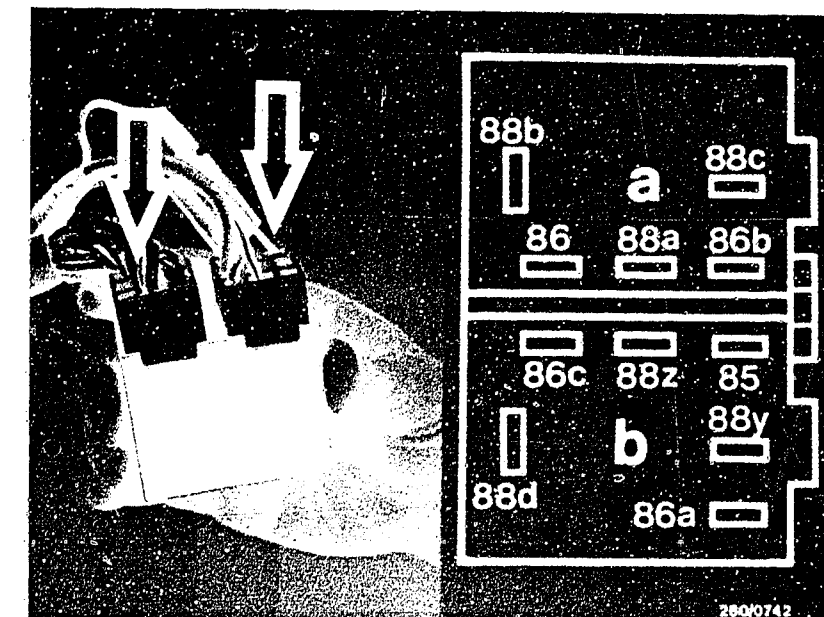
1. Start testing with test step 1.
2. The sequence of the test steps must be kept to.  
In each case, the trouble-shooting set out below each test step is based on the trouble-shooting set out below the previous test steps.  
Example: If, in test step 1, the ground connection term. 85 for the relay set is tested, this test is not repeated in the following test steps.
3. If an incorrect reading is obtained for a test step, this test step must be repeated after the fault has been remedied.

Note:

In the following test steps a wide border in the "operation" column indicates which operation has to be changed in comparison with the preceding test step.



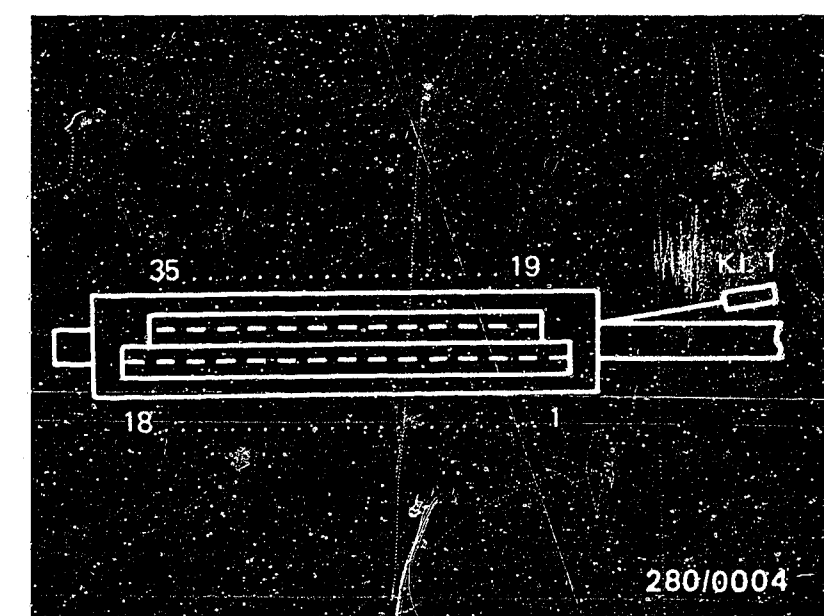
<u>Test step 1</u>		<u>Reading</u>	<u>Testing</u>
<u>Operation</u>			
<u>Program switch position "V"</u>	3	Multimeter must indicate  <u>8 ... 15 V.</u>	<u>Component:</u> Relay set Starting motor term. 50
<u>Program switch position: "Ω"</u>	1)		
<u>Measuring equipment:</u> Multimeter (Volt range)			<u>Operation:</u> Starting signal
<u>Measuring range:</u> 0...15 V			
<u>Connection:</u> Test sockets red (+) and black (-)		yes ↓ Continue testing with <u>next</u> <u>test step.</u>	<u>Malfunction:</u> No voltage reading
<u>Operation in vehicle:</u> Ignition "ON" and operate starting motor		no ↓	



Measure voltage on back of plug

a = Jetronic wiring harness  
b = Vehicle wiring harness

Top view of multiple plug  
K1.1 = Term. 1



### Trouble-shooting:

For all voltage measurements:

1. Set value 8...15 V (when operating starting motor).
2. Make measurement at the respective component plug.
3. The connector remains plugged onto the relay set.

For resistance measurements:

For testing, remove wiring-harness plug from the test adapter and, if necessary, use circuit diagram. Set value approx. 0 Ω.

Important! Ignition "OFF" and ensure proper electrical connection when measuring.

- 1) Switch position not specified

Continued on B13/B14

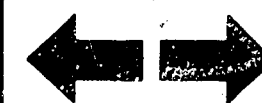
**B11**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



**B12**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



Voltage reading below 8 V:

Battery insufficiently charged or high voltage drops.

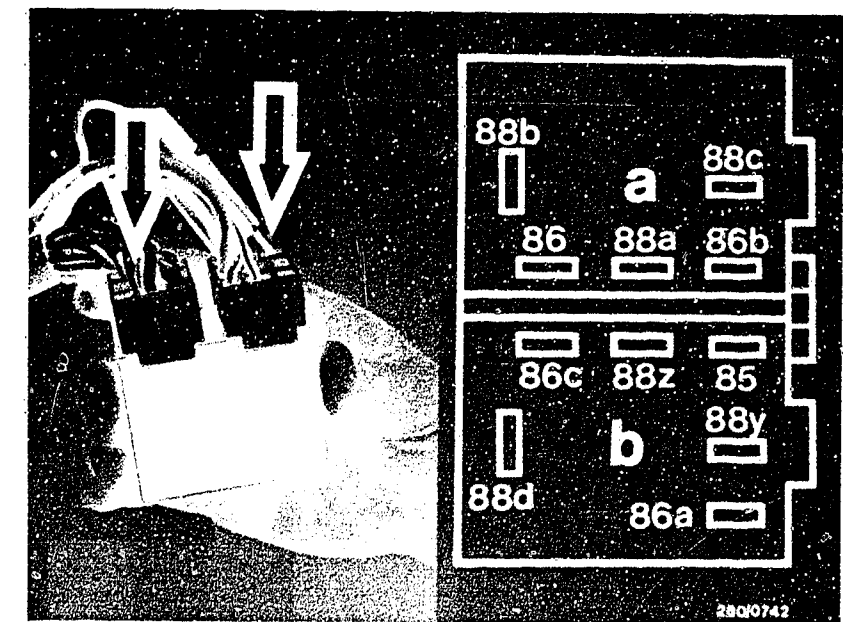
No voltage reading:

1. Voltage at relay set term. 86a? If no voltage, test lead to starting motor term. 50. Check ground connection from relay set Term. 85 to ground.
2. Voltage at relay set term. 86? If no voltage, replace relay set.
3. Test lead from relay set term. 86 to multiple plug term. 4 (across plug connection "B" (yellow socket)).

Eliminate contact resistances at the plug-in connections.

Installation position of the components:

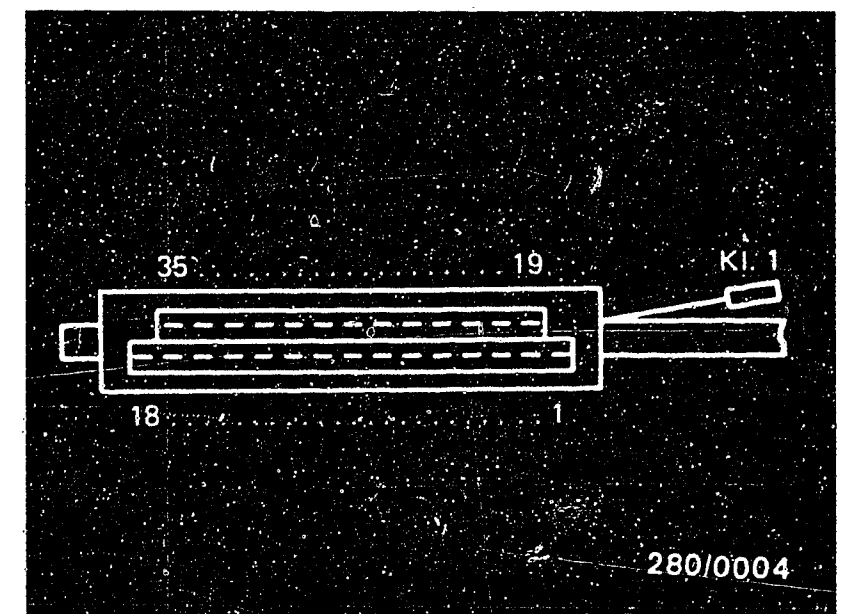
- |                         |  |
|-------------------------|--|
| <u>Relay set:</u>       | In the engine compartment, near the left headlight.                                |
| <u>Central ground:</u>  | Under a cover on the left in the engine compartment, near the battery.             |
| <u>Control unit:</u>    | In the passenger compartment, behind a cover in the footwell on the driver's side. |
| <u>Plug connection:</u> | Under a sheet metal cover below the spare wheel in the engine compartment.         |



Measure voltage on back of plug

a = Jetronic wiring harness  
b = Vehicle wiring harness

Top view of multiple plug  
Kl. 1 = Term. 1



**B 13**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas

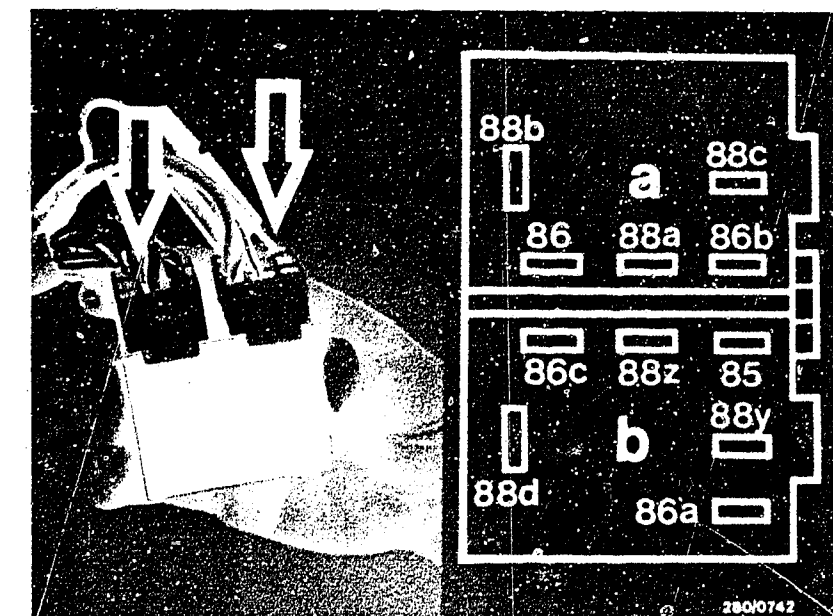


**B 14**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



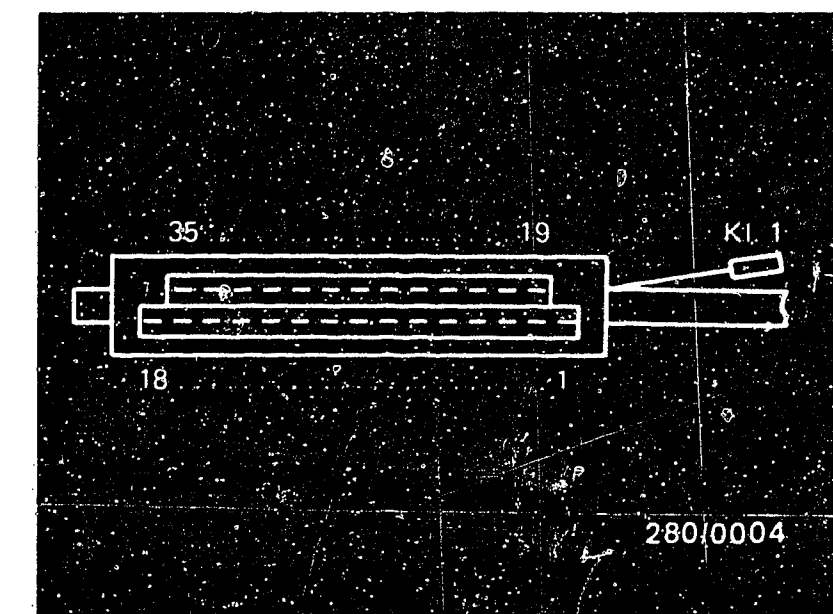
<u>Test step 2:</u> <u>Operation</u>		<u>Reading</u>	<u>Testing</u>
<u>Program switch position "V":</u>	4	Multimeter must indicate  <u>8 ... 15 V.</u>	<u>Component:</u> Auxiliary-air device, relay set
<u>Program switch position: "Ω"</u>	-		
<u>Measuring equipment:</u> Multimeter (Volt range)		<div><div>yes</div><div>Continue testing with <u>next test step.</u></div></div> <div><div>no</div><div></div></div>	<u>Operation:</u> Power supply
<u>Measuring range:</u> 0 ... 15 V			
<u>Connection:</u> Test sockets red (+) and black (-)			
<u>Operation in vehicle:</u> Ignition "ON" and operate starting motor			
			<u>Malfunction:</u> No reading



Measure voltage on back of plug

a = Jetronic wiring harness  
b = Vehicle wiring harness

Top view of multiple plug  
Kl. 1 = Term. 1



### Trouble-shooting:

For all voltage measurements:

1. Set value 8...15 V (when operating starting motor).
2. Make measurement at the respective component plug.
3. The connector remains plugged onto the relay set.

For resistance measurements:

For testing, remove wiring-harness plug from the test adapter and, if necessary, use circuit diagram. Set value approx. 0 Ω.

Important! Ignition "OFF" and ensure proper electrical connection when measuring.

a) Start engine; electric fuel pump operates.

1. Is there voltage across relay set Term. 88c? If not, check lead from relay set to central ground. If error is not corrected, take out and replace relay set.

Continued on B17/B18

**B 15**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



**B 16**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



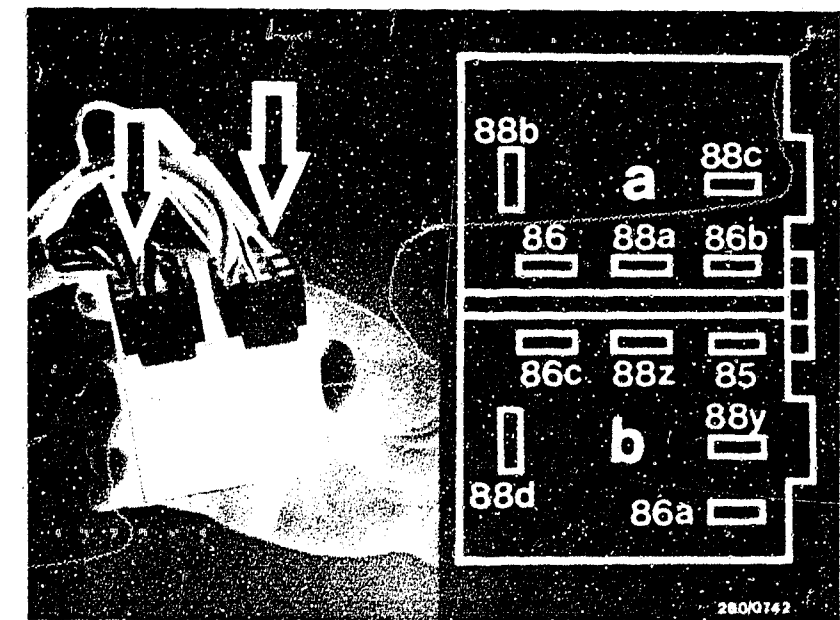
## Trouble-shooting (continued)

2. Is there voltage across auxiliary-air device Term. 48? If not, check lead 48 from the auxiliary-air device to relay set Term. 88c (via plug connection "A", white socket).
3. Check auxiliary-air device for continuity. Specified value  $30 \dots 65 \Omega$ . If there are deviations, take out and replace the auxiliary-air device.
4. Check lead 34 from the auxiliary-air device to multiple plug Term. 34 (via plug connection "A", white socket).
- b) Start the engine. Electric fuel pump does not run
1. Is there voltage across relay set Term. 88y? If not, check pump fuse and power supply Term. 30.
2. Is there voltage across relay set Term. 88d? If not, take out and replace relay set.
3. Check the electric fuel pump and leads (grounding).
4. Is there voltage across relay set Term. 88c? If not, check lead from relay set Term. 85 to ground. If the problem is not corrected, take out and replace relay set.
5. Is there voltage across auxiliary-air device Term. 48? If not, check lead 48 from auxiliary-air device to relay set Term. 88c (via plug connection "A", white socket).
6. Check auxiliary-air device for continuity. Specified value  $30 \dots 65 \Omega$ . If there are deviations, take out and replace the auxiliary-air device.
7. Check lead 34 from the auxiliary-air device to multiple plug Term. 34 (via plug connections "A", white socket).

Eliminate contact resistances at the plug connections.

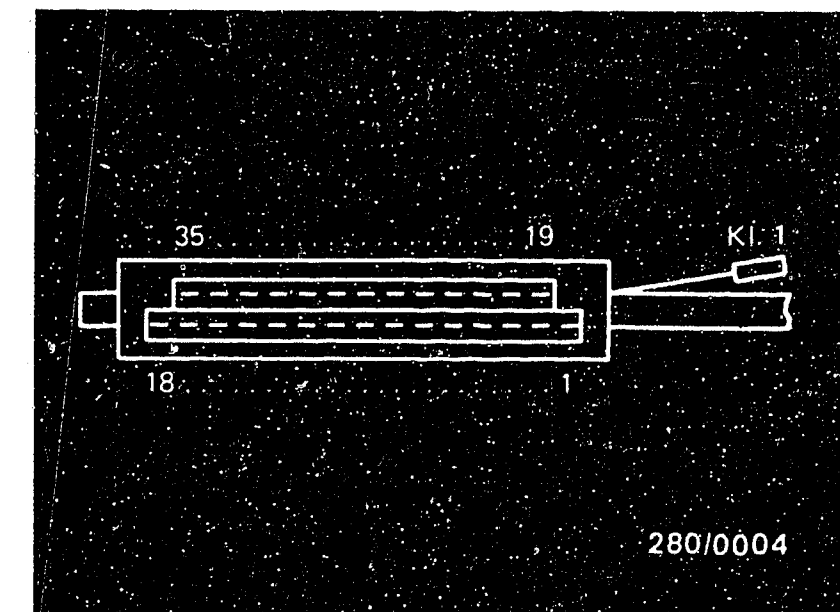
### Installation position of the components:

- |  |  |
|--|--|
| <u>Relay set:</u>                          | In the engine compartment, near the left headlight.  |
| <u>Control unit:</u>                       | In the passenger compartment, behind a cover in the footwell on the driver's side.   |
| <u>Auxiliary-air device:</u>               | In the engine compartment, mounted cross-wise on the engine block, below the solenoid-operated injection valves.           |
| <u>Fuel pump fuse:</u>                     | On the left in the engine compartment, in the fuse box, red fuse for Term. 2 ignition lock.                                |
| <u>Electric fuel pump:</u>                 | Under the vehicle on the right, behind the cross-tie (near the rear wheel).  |
| <u>Ground lead for electric fuel pump:</u> | Up to 8.81 model: Clamping location at the right tank suspension<br>As of 9.81 model: On the rear right, on the taillight. |
| <u>Central ground:</u>                     | On the left in the engine compartment, under a cover near the battery.   |



Measure voltage on the back of the plug.

a = Jetronic wiring harness  
b = Vehicle wiring harness



**B17**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



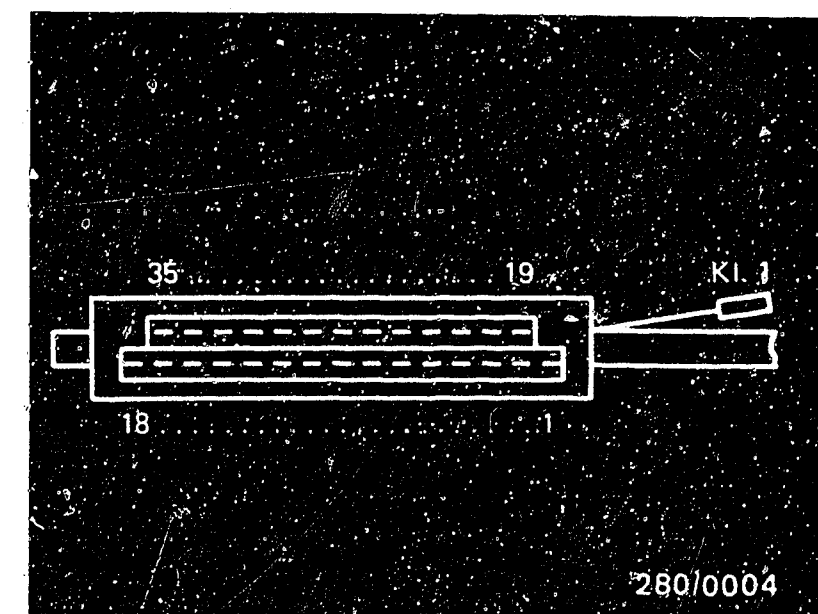
**B18**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas





Test step 3: (not for vehicles with TD-triggering)		
Operation	Reading	Testing
Program switch position "V":	5	Component: Signal from term. 1
Program switch position: "Ω"	-	
Measuring equipment: Motortester		Operation: Triggering of the control unit by means of the ignition
Measuring range: Special input, control lever all the way to the left Measuring range 20 V		
Connection: Test wells	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">             yes ↓ Continue testing with next test step.           </div> <div style="text-align: center;">             no ↓           </div> </div>	Malfunction: No reading
Operation in vehicle: Ignition "ON" and operate starting motor		



Top view of multiple plug  
Kl. 1 = Term. 1

Installation position of the components:

Control unit:  
In the passenger compartment, behind a cover in the driver's footwell

Central ground:  
On the left in the engine compartment, under a cover near the battery

Plug connections:  
Under a sheet metal cover below the spare wheel in the engine compartment.

#### Trouble-shooting:

##### For all voltage measurements:

1. Set value 8...15 V (when operating starting motor).
2. Make measurement at the respective component plug.
3. The connector remains plugged onto the relay set.

##### For resistance measurements:

For testing, remove wiring-harness plug from the test adapter and, if necessary, use circuit diagram. Set value approx. 0 Ω.

Important! Ignition "OFF" and ensure proper electrical connection when measuring.

Lead from multiple plug term. 1 to ignition coil term. 1 dropped off?

(Across plug connections B, D, and C). Check and, if need be, repair.

Voltage at ignition coil term. 1? If not, check ignition system. If voltage present, test lead 1 for continuity or for short circuit to ground. If the lead and plug connections B, D, and C are O.K., then the trigger stage in the control unit has failed. Take out and replace the control unit.

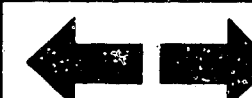
**B 19**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



**B 20**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



Test step 4			
Operation		Reading	Testing
Program switch position "V":	6	Multimeter must indicate  8 ... 15 V	Component: Relay set, power supply
Program switch position: "Ω"	-		
Measuring equipment: Multimeter (Volt range)			Operation: Power supply
Measuring range: 0...15 V			
Connection: Test sockets red (+) and black (-)			Malfunction: No voltage reading
Operation in vehicle: Ignition "ON"		yes ↓ Continue testing with next test step.	
		no ↓	

#### Trouble-shooting:

##### For all voltage measurements:

1. Set value 8...15 V (ignition "ON").
2. Make measurement at the respective component plug.
3. The connector remains plugged onto the relay set.

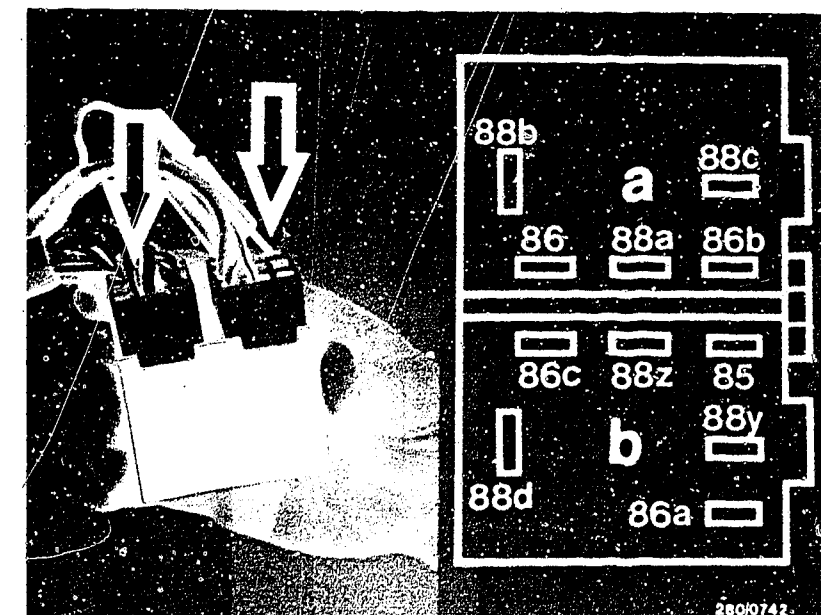
##### For resistance measurements:

For testing, remove wiring-harness plug from the test adapter and, if necessary, use circuit diagram. Set value approx. 0 Ω.

Important! Ignition "OFF" and ensure proper electrical connection when measuring.

1. Is there voltage across relay set Term. 86c? If not, check lead Term. 15 and relief relay (if there is one).
2. Voltage at relay set term. 88z? If not, test lead to battery (positive terminal).
3. Voltage at relay set term. 88a? If not, replace relay set.
4. Test lead 10 from relay set term. 88a to multiple plug term. 10 for continuity.

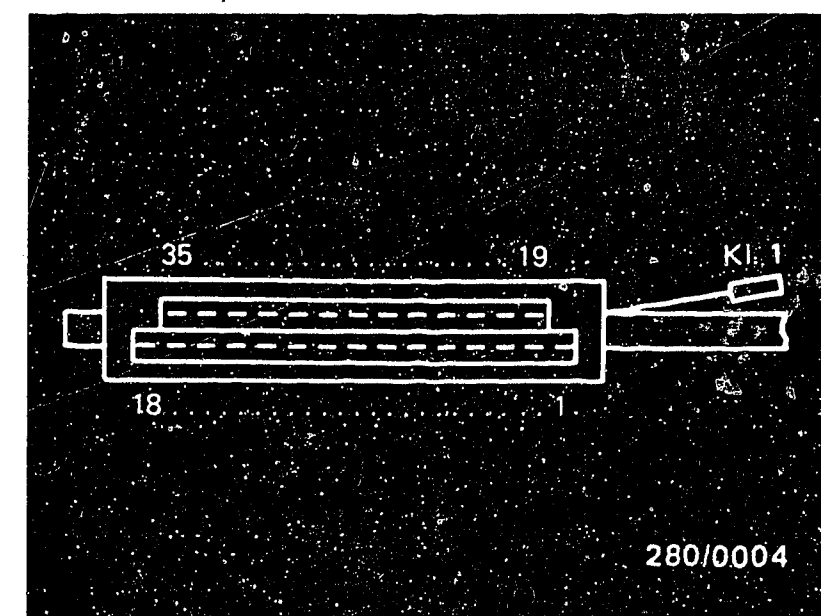
Eliminate contact resistances at the plug in connections.



Measure voltage on back of plug

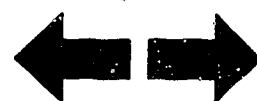
a = Jetronic wiring harness  
b = Vehicle wiring harness

Top view of multiple plug  
Kl. 1 = Term. 1



**B21**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas

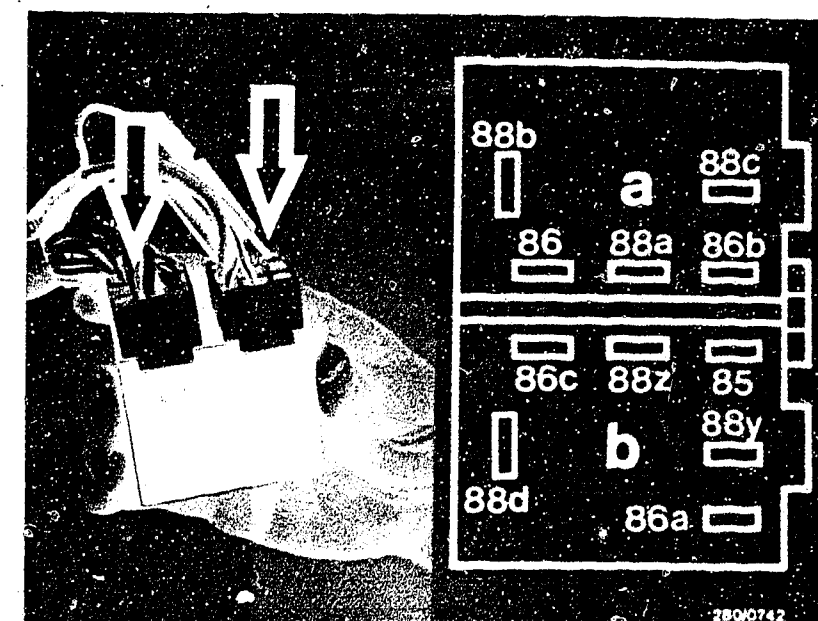


**B22**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



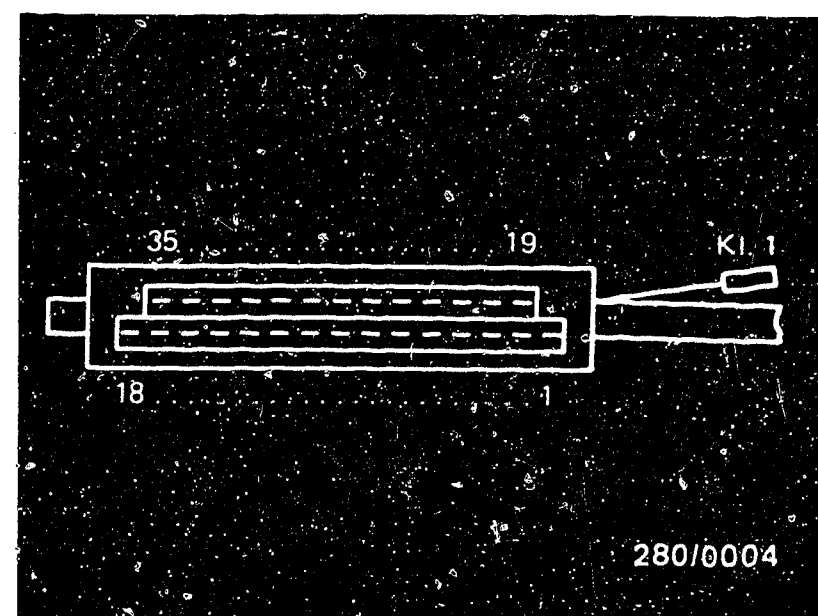
<u>Test step 5</u>		<u>Reading</u>	<u>Testing</u>
<u>Operation</u>			
<u>Program switch position "V":</u>	7	Multimeter must indicate	<u>Component:</u> Control unit Relay set
<u>Program switch position: "Ω"</u>	-	<u>8 ... 15 V.</u>	
<u>Measuring equipment:</u> Multimeter (Volt range)		<div><div>yes</div><div>Continue testing with <u>next test step.</u></div></div> <div><div>no</div><div></div></div>	<u>Operation:</u> Power supply to 1st solenoid-operated injection valve
<u>Measuring range:</u> 0...15 V			
<u>Connection:</u> Test sockets red (+) and black (-)			<u>Malfunction:</u> No voltage reading
<u>Operation in vehicle:</u> Ignition "ON"			



Measure voltage on back of plug

a = Jetronic wiring harness  
b = Vehicle wiring harness

Top view of multiple plug  
Kl. 1 = Term. 1



#### Trouble-shooting:

For all voltage measurements:

1. Set value 8...15 V.
2. Make measurement at the respective component plug.
3. The connector remains plugged onto the relay set.

For resistance measurements:

For testing, remove wiring-harness plug from the test adapter and, if necessary, use circuit diagram. Set value approx. 0 Ω.

Important! Ignition "OFF" and ensure proper electrical connection when measuring.

Continued on C1/C2

**B23**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



**B24**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



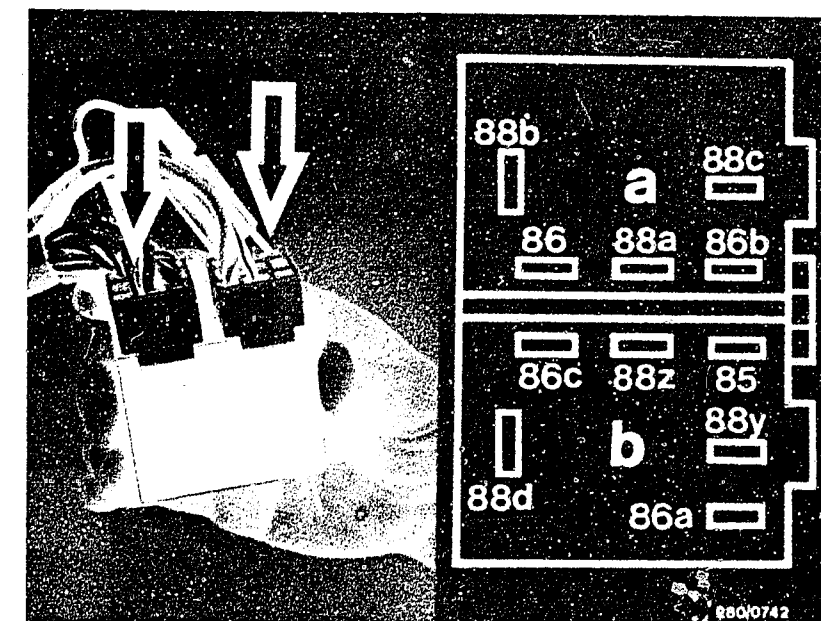
## Trouble-shooting (continued)

1. Is there voltage across relay set Term. 88b? If not, take out and replace the relay set.
2. Check plug connection, connecting leads, and series resistors. Specified value for one series resistor 5...7  $\Omega$ . If defective, take out and replace the plug connection or the series resistor.
3. Check plug connection on the first solenoid-operated injection valve. If defective repair the plug connection.
4. Is there voltage across solenoid-operated injection valve plug Term. 37? If not, check the lead from the solenoid-operated injection valve plug to the series resistor.
5. Check lead 15 from the solenoid-operated injection valve plug to multiple plug Term. 15 for continuity.

Eliminate contact resistances at the plug connections.

### Installation position of the components

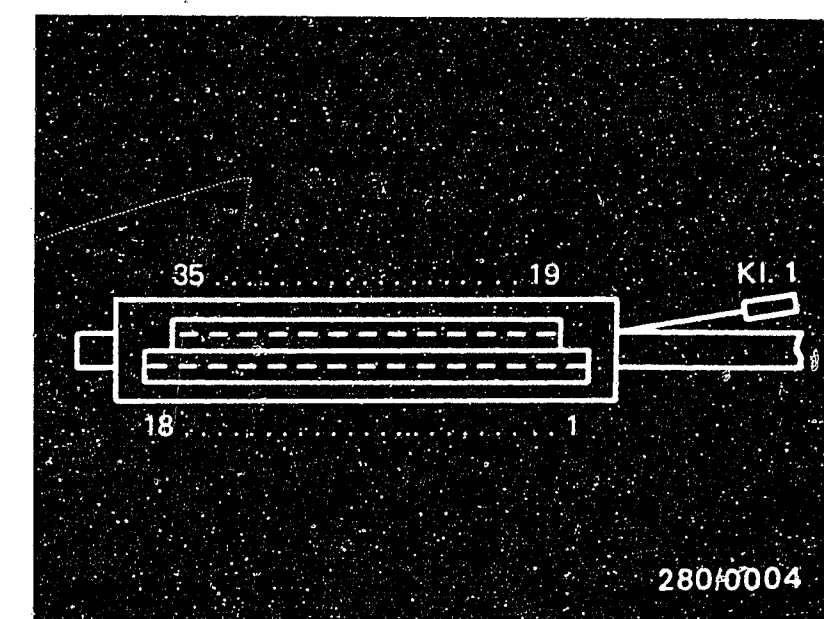
<u>Relay set:</u>	At the right in the engine compartment, near the left headlight.
<u>Control unit:</u>	In the passenger compartment, behind a cover in the footwell on the driver's side.
<u>Solenoid-operated injection valve:</u>	Between the intake manifold and the engine block.



Measure the voltage on the back of the plug.

a = Jetronic wiring harness  
b = Vehicle wiring harness

Top view of multiple plug



**C1**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



**C2**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



Test step 6			
Operation		Reading	Testing
<u>Program switch position "V":</u>	8	Multimeter must indicate  8 ... 15 V.	<u>Component:</u> Control unit, Relay set
<u>Program switch position: "Ω"</u>	-		
<u>Measuring equipment:</u> Multimeter (Volt range)		<div><div>yes</div><div>Continue testing with <u>next test step.</u></div></div> <div>no</div>	<u>Operation:</u> Power supply to 2nd solenoid-operated injection valve
<u>Measuring range:</u> 0...15 V			
<u>Connection</u> Test sockets red (+) and black (-)			<u>Malfunction:</u> No voltage reading
<u>Operation in vehicle:</u> Ignition "ON"			

#### Trouble-shooting:

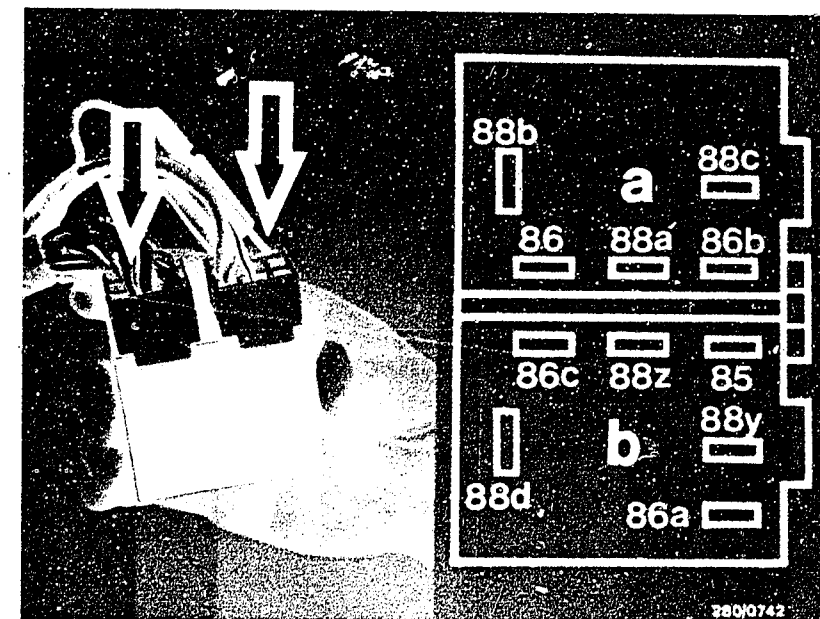
For all voltage measurements:

1. Set value 8 ... 15 V (ignition "ON").
2. Make measurement at the respective component plug.
3. The connector remains plugged onto the relay set.

For resistance measurements:

For testing, remove wiring-harness plug from the test adapter and, if necessary, use circuit diagram. Set value approx. 0 Ω.

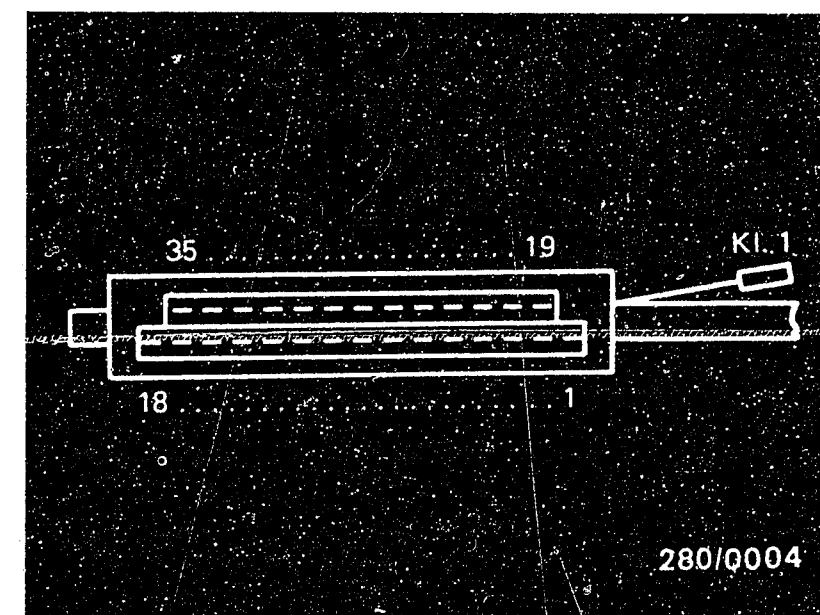
Important! Ignition "OFF" and ensure proper electrical connection when measuring.



Measure voltage on back of plug

a = Jetronic wiring harness  
b = Vehicle wiring harness

Top view of multiple plug  
Kl. = Term. 1



Continued on C5/C6

**C3**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



**C4**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



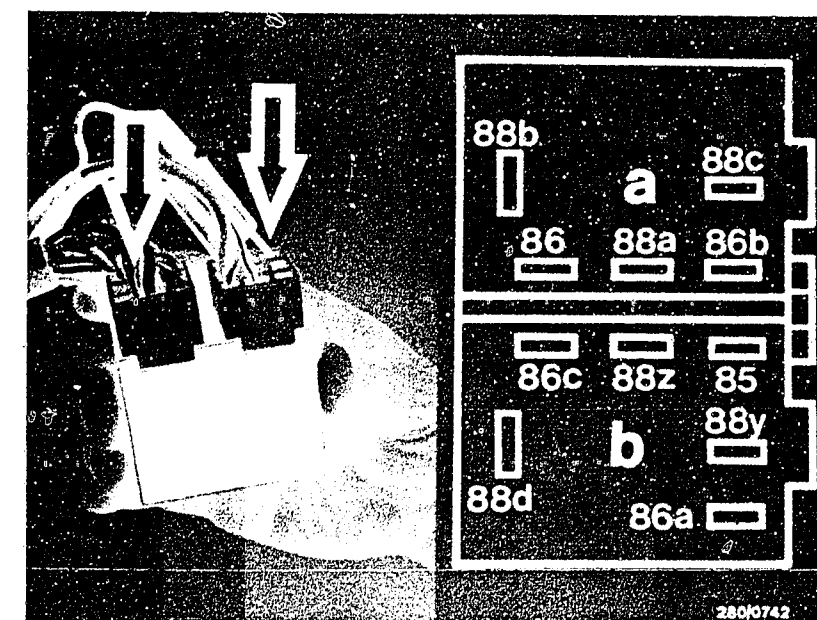
## Trouble-shooting (continued)

1. Is there voltage across relay set Term. 88b? If not, take out and replace the relay set.
2. Check plug connection, connecting leads, and series resistors. Specified value for one series resistor 5...7  $\Omega$ . If defective, take out and replace the plug connection or the series resistor.
3. Check plug connection on the second solenoid-operated injection valve. If defective repair the plug connection.
4. Is there voltage across solenoid-operated injection valve plug Term. 38? If not, check the lead from the solenoid-operated injection valve plug to the series resistor.
5. Check lead 33 from the solenoid-operated injection valve plug to multiple plug Term. 33 for continuity.

Eliminate contact resistances at the plug connections.

### Installation position of the components

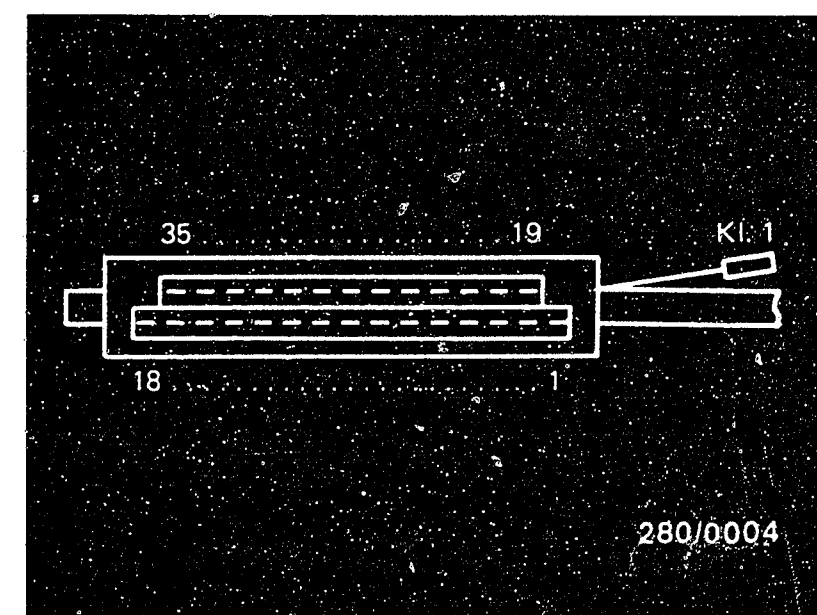
<u>Relay set:</u>	At the right in the engine compartment, near the left headlight.
<u>Control unit:</u>	In the passenger compartment, behind a cover in the footwell on the driver's side.
<u>Solenoid-operated injection valve:</u>	Between the intake manifold and the engine block.



Measure the voltage on the back of the plug.

a = Jetronic wiring harness  
b = Vehicle wiring harness

Top view of multiple plug



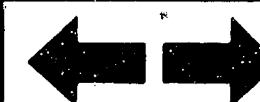
**C5**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



**C6**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas





Test step 7			
Operation		Reading	Testing
Program switch position "V"	9	Multimeter must indicate  8 ... 15 V.	<u>Component:</u> Control unit, Relay set  <u>Operation:</u> Power supply to 3rd solenoid-operated injection valve  <u>Malfunction:</u> No voltage reading
Program switch position: "Ω"	-		
Measuring equipment: Multimeter (Volt range)			
Measuring range: 0 ... 15 V		<div>yes</div> <div>no</div>	
Connection Test sockets red (+) and black (-)			
Operation in vehicle: Ignition "ON"			
		Continue testing with next test step.	

#### Trouble-shooting:

For all voltage measurements:

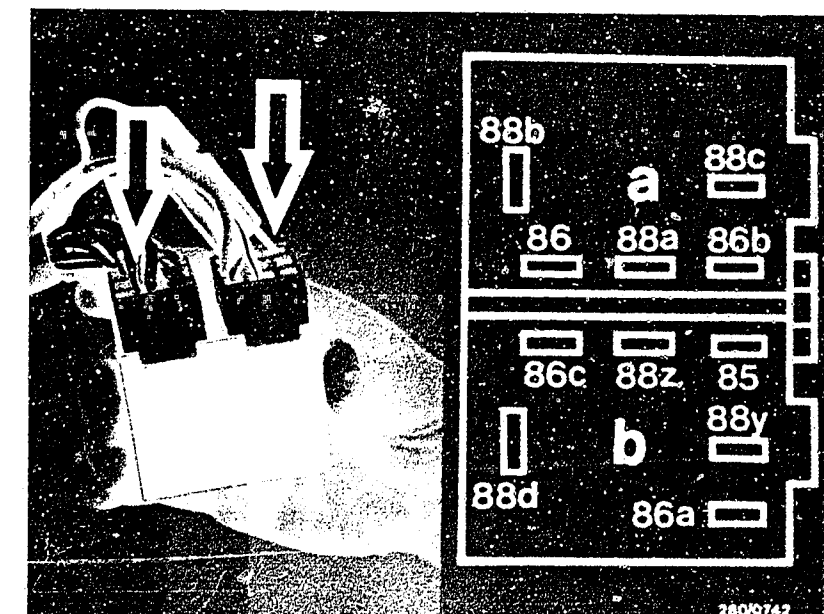
1. Set value 8 ... 15 V (ignition "ON").
2. Make measurement at the respective component plug.
3. The connector remains plugged onto the relay set.

For resistance measurements:

For testing, remove wiring-harness plug from the test adapter and, if necessary, use circuit diagram. Set value approx. 0 Ω.

Important! Ignition "OFF" and ensure proper electrical connection when measuring.

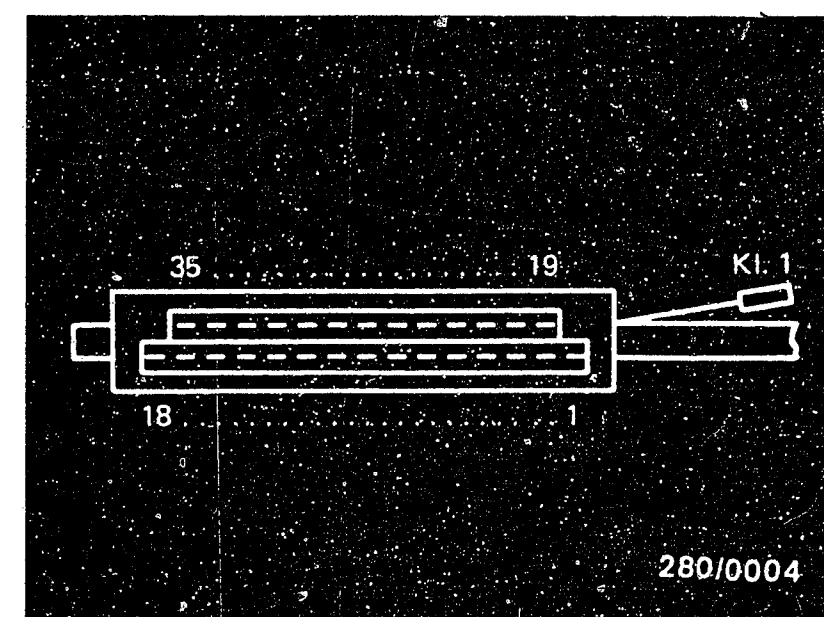
Continued on C9/C10



Measure voltage on back of plug

a = Jetronic wiring harness  
b = Vehicle wiring harness

Top view of multiple plug  
Kl. 1 = Term. 1



**C7**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



**C8**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



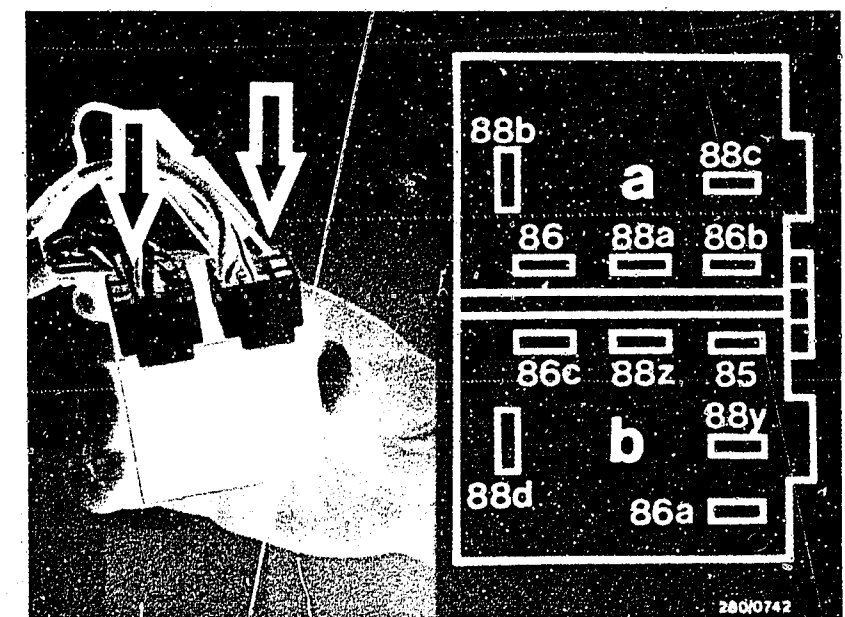
## Trouble-shooting (continued)

1. Is there voltage across relay set Term. 88b? If not, take out and replace the relay set.
2. Check plug connection, connecting leads, and series resistors. Specified value for one series resistor 5...7  $\Omega$ . If defective, take out and replace the plug connection or the series resistor.
3. Check plug connection on the third solenoid-operated injection valve. If defective repair the plug connection.
4. Is there voltage across solenoid-operated injection valve plug Term. 40? If not, check the lead from the solenoid-operated injection valve plug to the series resistor.
5. Check lead 15 from the solenoid-operated injection valve plug to multiple plug Term. 32 for continuity.

Eliminate contact resistances at the plug connections.

### Installation position of the components

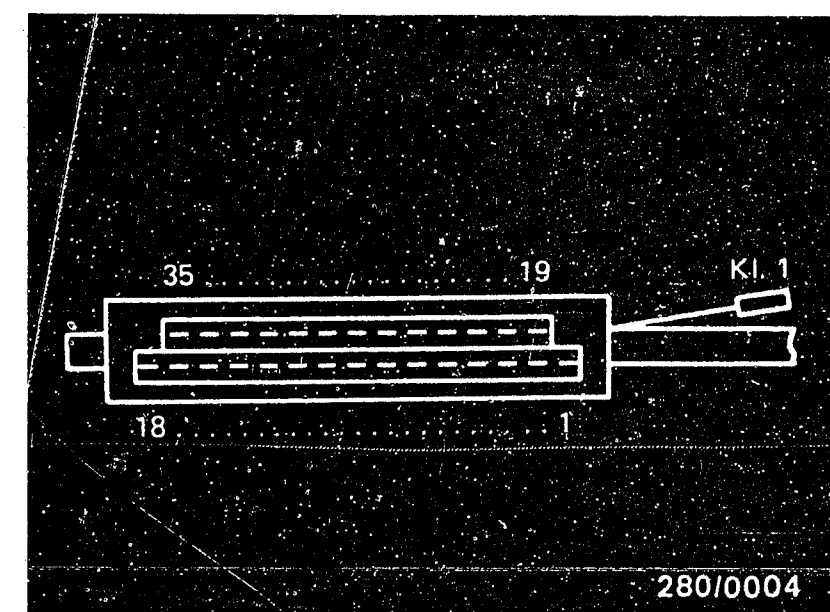
<u>Relay set:</u>	At the right in the engine compartment, near the left headlight.
<u>Control unit:</u>	In the passenger compartment, behind a cover in the footwell on the driver's side.
<u>Solenoid-operated injection valve:</u>	Between the intake manifold and the engine block.



Measure the voltage on the back of the plug.

a = Jetronic wiring harness  
b = Vehicle wiring harness

Top view of multiple plug



**C9**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



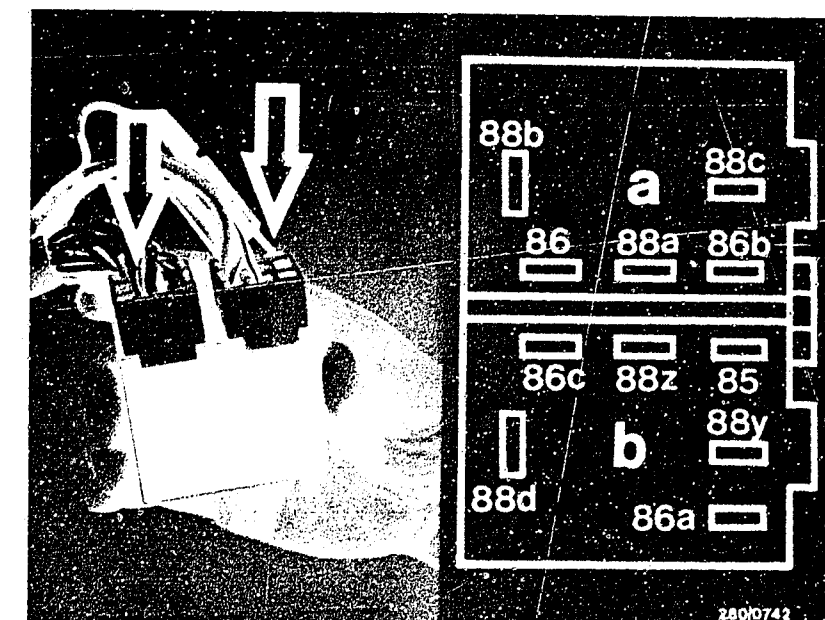
**C10**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



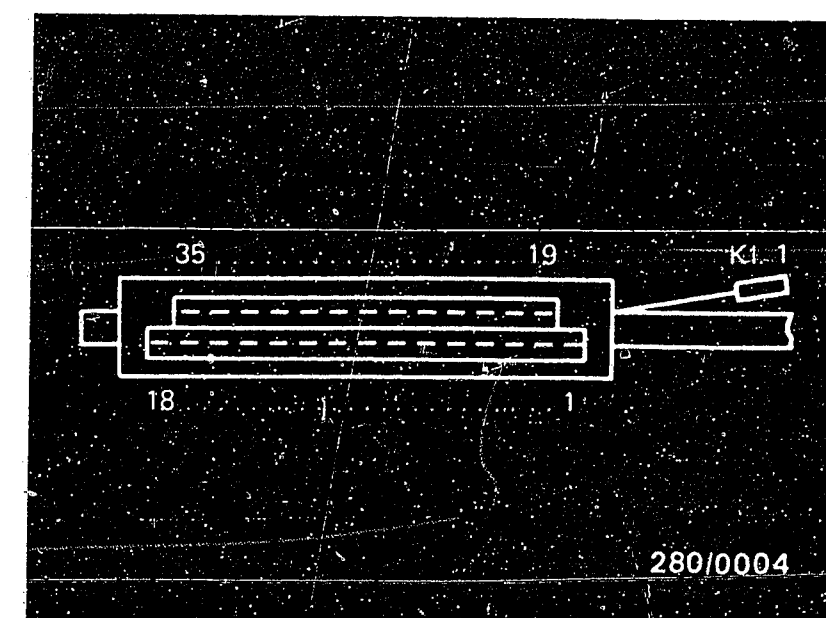


Test step 8			
Operation		Reading	Testing
Program switch position "V":	10	Multimeter must indicate  8 ... 15 V.	Component: Control unit, Relay set
Program switch position: "Ω"	-		
Measuring equipment: Multimeter (Volt range)		<div><div></div><div>yes</div><div>↓</div><div>Continue testing with next test step.</div></div> <div><div></div><div>no</div><div>↓</div><div></div></div>	Operation: Power supply to 4th solenoid-operated injection valve
Measuring range: 0 ... 15 V			
Connection: Test sockets red (+) and black (-)			
Operation in vehicle: Ignition "ON"			
			Malfunction: No voltage reading



Measure voltage on back of plug.  
Relay set  
0 332 514 121  
a = Jetronic wiring harness  
b = Vehicle wiring harness

Top view of multiple plug  
K1. 1 = Term. 1



#### Trouble-shooting:

For all voltage measurements:

1. Set value 8 ... 15 V (ignition "ON").
2. Make measurement at the respective component plug.
3. The connector remains plugged onto the relay set.

For resistance measurements:

For testing, remove wiring-harness plug from the test adapter and, if necessary, use circuit diagram. Set value approx. 0 Ω.

Important! Ignition "OFF" and ensure proper electrical connection when measuring.

Continued on C13/C14

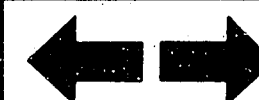
**C11**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



**C12**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



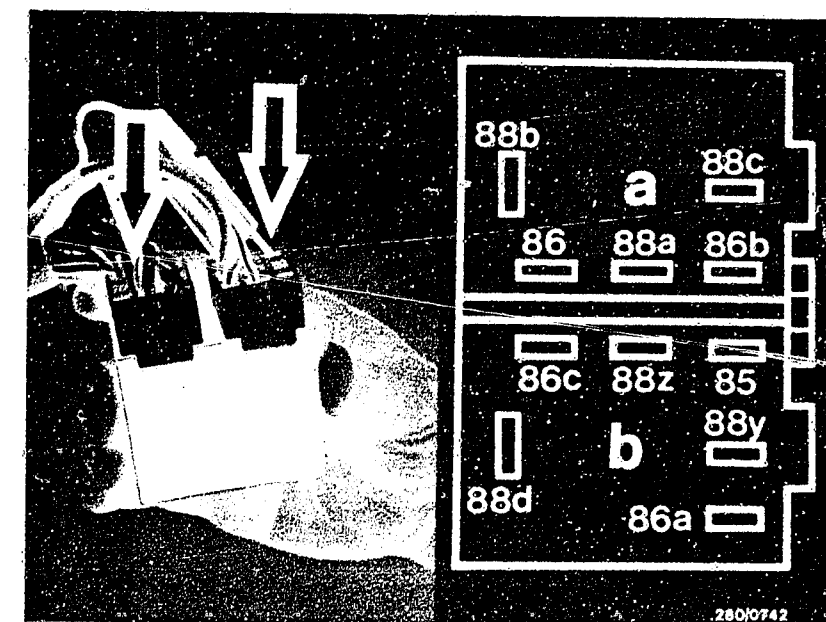
## Trouble-shooting (continued)

1. Is there voltage across relay set Term. 88b? If not, take out and replace the relay set.
2. Check plug connection, connecting leads, and series resistors. Specified value for one series resistor 5...7  $\Omega$ . If defective, take out and replace the plug connection or the series resistor.
3. Check plug connection on the injection valve. If defective repair the plug connection.
4. Is there voltage across solenoid-operated injection valve plug Term. 41? If not, check the lead from the solenoid-operated injection valve plug to the series resistor.
5. Check lead 14 from the solenoid-operated injection valve plug to multiple plug Term. 14 for continuity.

Eliminate contact resistances at the plug connections.

### Installation position of the components

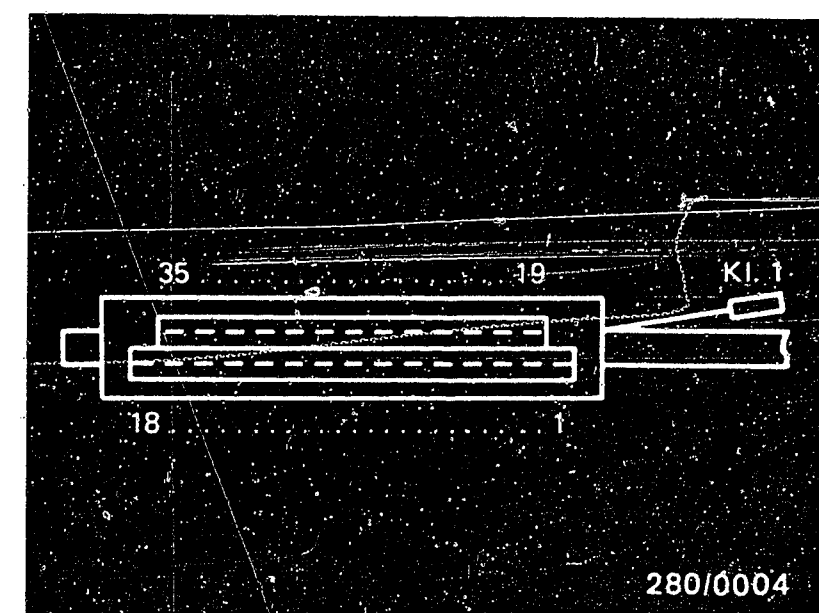
<u>Relay set:</u>	At the right in the engine compartment, near the left headlight.
<u>Control unit:</u>	In the passenger compartment, behind a cover in the footwell on the driver's side.
<u>Solenoid-operated injection valve:</u>	Between the intake manifold and the engine block.



Measure the voltage on the back of the plug.

a = Jetronic wiring harness  
b = Vehicle wiring harness

Top view of multiple plug



**C13**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



**C14**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



Test step 9			
Operation		Reading	Testing
Program switch position "V"	11	Multimeter must indicate  8 ... 15 V.	<u>Component:</u> Pump contact in air-flow sensor, relay set
Program switch position: "Ω"	-		
<u>Measuring equipment:</u> Multimeter		<div><div>yes</div><div>↓</div><div>Continue testing with <u>next test step.</u></div></div> <div><div>no</div><div>↓</div><div></div></div>	<u>Operation:</u> Power supply to electric fuel pump
<u>Measuring range:</u> 0 ... 15 V			
<u>Connection:</u> Test sockets red (+) and black (-)			
<u>Operation in vehicle:</u> Ignition "ON", deflect air-flow sensor flap			
			<u>Malfunction:</u> No voltage reading

#### Trouble-shooting:

##### For all voltage measurements:

1. Set value 8 ... 15 V (ignition "ON").
2. Make measurement at the respective component plug.
3. The connector remains plugged onto the relay set.

##### For resistance measurements:

For testing, remove wiring-harness plug from the test adapter and, if necessary, use circuit diagram and disconnect the relay set.

Set value approx. 0 Ω.

Important! Ignition "OFF" and ensure proper electrical connection when measuring.

Continued on C17/C18

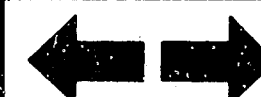
**C15**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



**C16**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



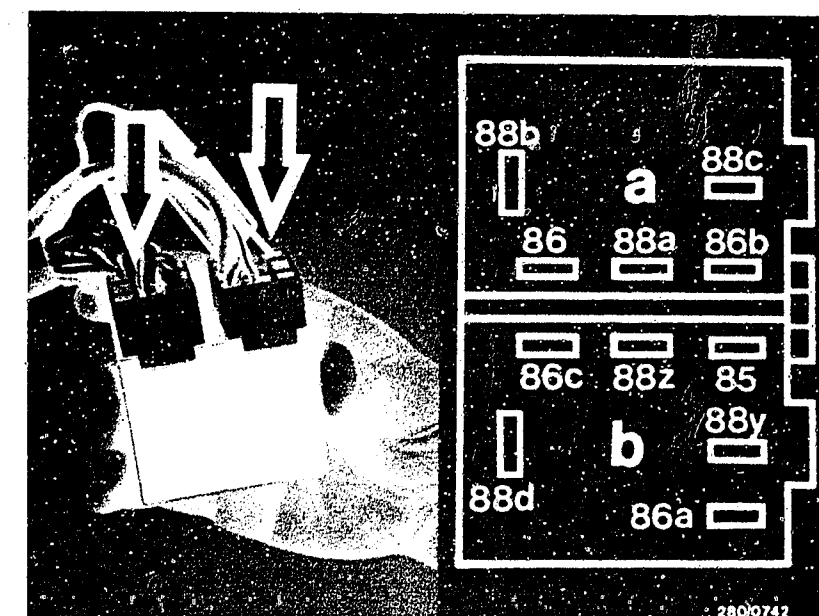
## Trouble-shooting (continued)

1. Is there voltage across air-flow sensor Term. 39? If not, remove plug on the air-flow sensor and check lead 39.
2. Check pump contact in the air-flow sensor (deflect the air-flow sensor flap). Check the diode in the air-flow sensor between Term. 6 and Term. 36 (diode starting from FD 052). (Positive pole of the ohmmeter to Term. 6 of the air-flow sensor). Specified value: approx. 0  $\Omega$ . With polarity reversed,  $\infty \Omega$ .
3. Check lead 36 between air-flow sensor Term. 36 and relay set Term. 86b.
4. Check lead 20 between control unit Term. 20 and relay set Term. 86b.

Eliminate contact resistances in the plug connections.

## Installation position of the components

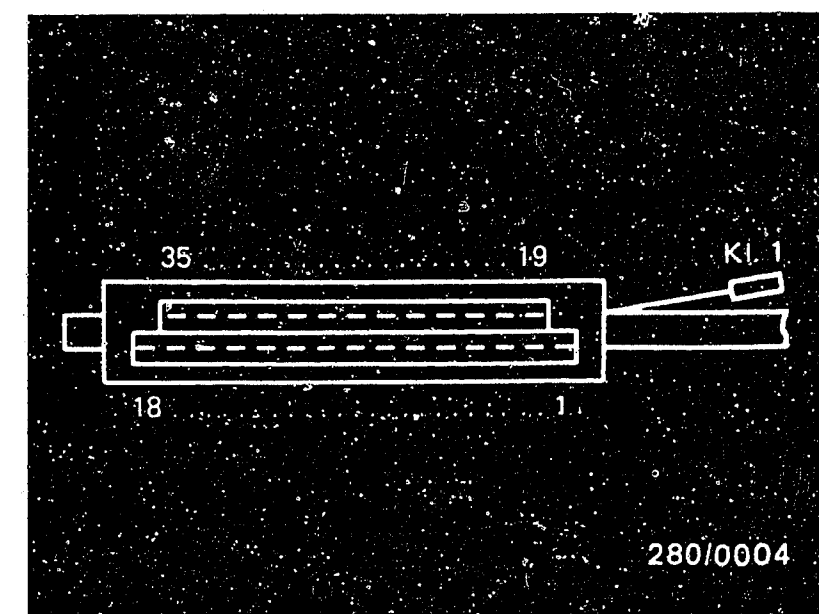
<u>Control unit:</u>	In the passenger compartment, behind a cover in the driver's side footwell
<u>Relay set:</u>	In the engine compartment, near the left headlight.
<u>Air-flow sensor:</u>	On the right in the engine compartment, near the right headlight.



Measure voltage on the back of the plug.

a = Jetronic wiring harness  
b = Vehicle wiring harness

Top view of multiple plug



**C17**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas

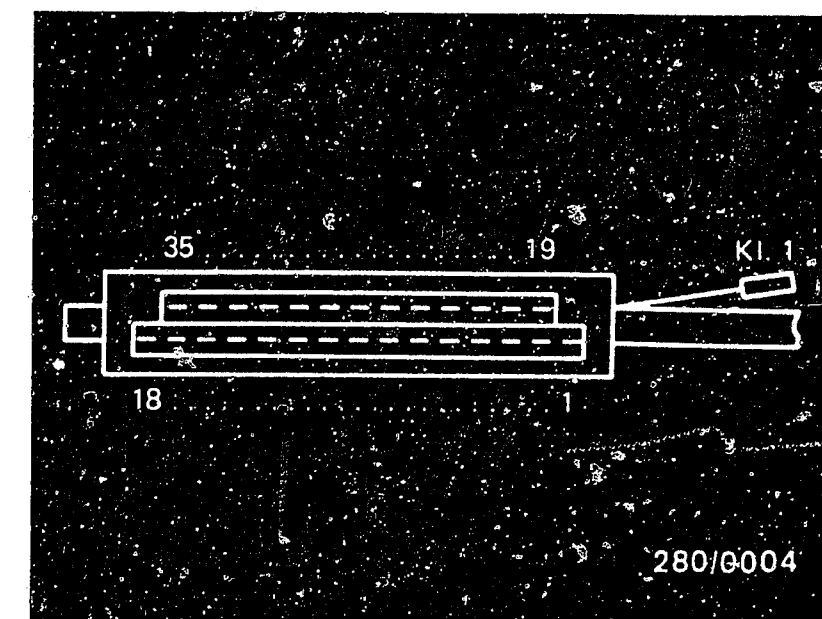


**C18**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



Test step 10 (not for vehicles with Term. 1 triggering)		
Operation	Reading	Testing
Program switch position "V":	5	Component: TD-signal
Program switch position: "Ω"	-	
Measuring equipment: Motortester		Operation: Triggering of control unit by the ignition
Measuring range: Special input, control lever all the way to the left Measuring range 20 V		
Connection: Test wells	yes ↓ Continue testing with next test step.	Malfunction: No reading
Operation in vehicle: Ignition "ON" and operate starting motor	no ↓	



Top view of multiple plug  
Kl. 1 = Term. 1

#### Installation position of the components:

##### Control unit:

In the passenger compartment, behind a cover in the driver's side footwell.

##### Central ground:

On the left in the engine compartment, under a cover near the battery.

##### Ignition trigger box:

In the glove compartment

#### Trouble-shooting:

##### For all voltage measurements:

1. Set value 8...15 V (when operating starting motor).
2. Make measurement at the respective component plug.
3. The connector remains plugged onto the relay set.

##### For resistance measurements:

For testing, remove wiring-harness plug from the test adapter and, if necessary, use circuit diagram. Set value approx. 0 Ω.

Important! Ignition "OFF" and ensure proper electrical connection when measuring.

Has lead from multiple plug Term. 19 to ignition trigger box Term. 7 dropped off?

Test and, if necessary, repair.

Voltage at ignition coil term. 1? If not, check ignition system. If voltage present, test lead 19 for continuity or for short circuit to ground.

If the lead is O.K., then the trigger stage in the control unit has failed. Replace control unit.

**C19**


Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



**C20**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



Test step 11			
Operation		Reading	Testing
<u>Program switch position "V":</u>		Multimeter must indicate  <u>40 ... 300 Ω</u>	<u>Component:</u> Air-flow sensor (Potentiometer)
<u>Program switch position: "Ω"</u>	6		
<u>Measuring equipment:</u> Multimeter (Ω range)			<div><div>yes</div><div>↓</div><div>Continue testing with <u>next test step</u>.</div></div> <div><div>no</div><div>↓</div><div></div></div>
<u>Measuring range:</u> x 10 Ω		<u>Malfunction:</u> Resistance outside tolerance	
<u>Connection:</u> Test sockets blue			
<u>Operation in vehicle:</u> Deflect air-flow sensor flap (as far as it will go)			

#### Trouble-shooting:

##### For resistance measurements:

For testing, remove wiring-harness plug from the test adapter and, if necessary, use circuit diagram. Set value approx. 0 Ω.

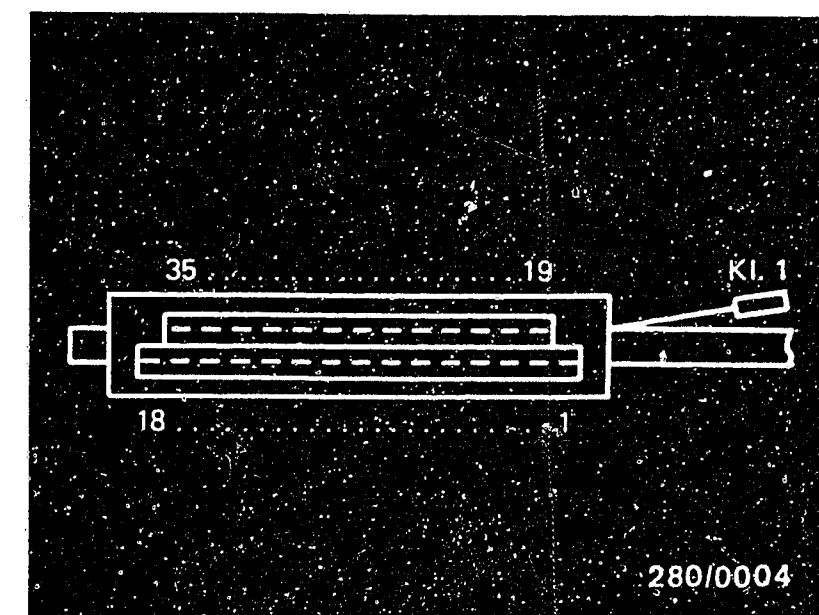
Important! Ignition "OFF" and ensure proper electrical contact when measuring.

From multiple plug term. 7 to air-flow sensor term. 7

From air-flow sensor term. 6 to multiple plug term. 6

From multiple plug term. 5 to central ground.

Eliminate contact resistances in the plug-in connections.



Top view of multiple plug

K1. 1 = Term. 1

#### Installation position of the components:

##### Control unit:

In the passenger compartment, behind a cover in the driver's footwell.

##### Air-flow sensor:

In the engine compartment, near the right headlight.

##### Central ground:

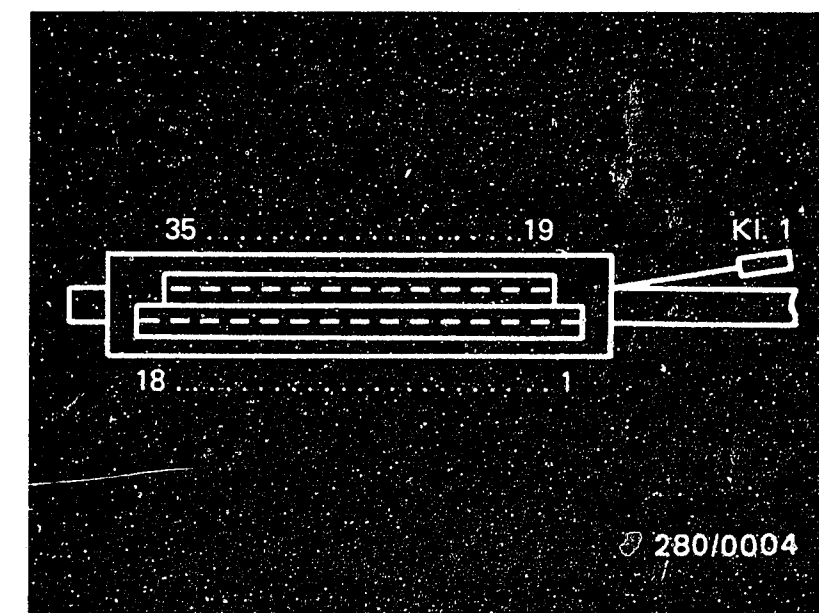
On the left in the engine compartment, under a cover near the battery.







Test step 13		
Operation	Reading	Testing
Program switch position "V"	Multimeter must indicate  200 ... 400 $\Omega$	Component: Air-flow sensor
Program switch position: " $\Omega$ "		
Measuring equipment: Multimeter ( $\Omega$ range)		Operation: Resistance between air-flow sensor term. 9 and central ground
Measuring range: x 10 $\Omega$	yes	Malfunction: Resistance outside tolerance
Connection: Test sockets blue	no	
Operation in vehicle:	Continue testing with next test step.	



Top view of multiple plug  
KI. 1 = Term. 1

#### Trouble-shooting:

##### For resistance measurements:

For testing, remove wiring-harness plug from test adapter and, if necessary, use circuit diagram. Set value approx. 0  $\Omega$ .

Important! Ignition "OFF" and ensure proper electrical connection when measuring.

From multiple plug term. 9 to air-flow sensor term. 9

From air-flow sensor term. 6 to multiple plug term. 6

From multiple plug term. 5 to central ground.

Eliminate contact resistances in the plug-in connections.

##### Installation position of the components:

##### Control unit:

In the passenger compartment, behind a cover in the driver's footwell.

##### Air-flow sensor:

In the engine compartment, near the right headlight.

##### Central ground:

On the left in the engine compartment, under a cover near the battery.

**D1**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas





**D2**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas





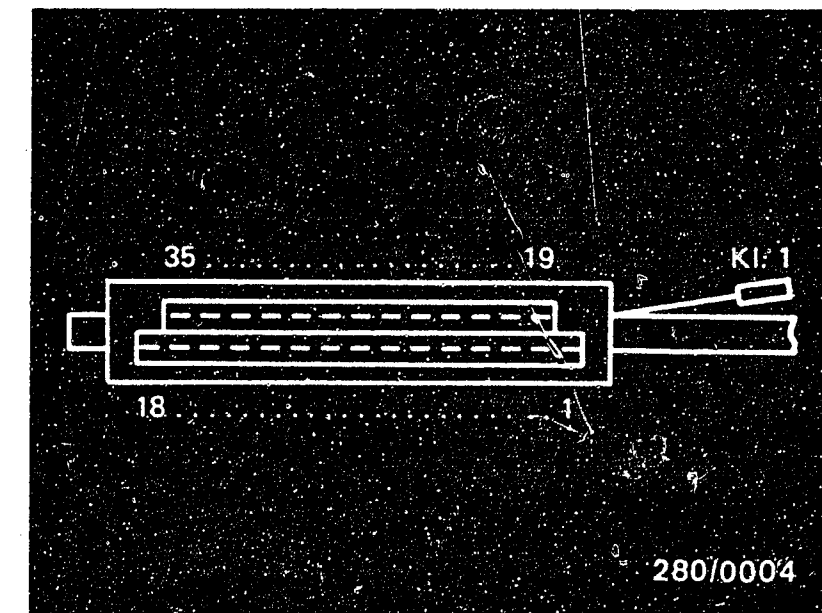
Test step 14			
Operation		Reading	Testing
<u>Program switch position "V"</u>		Multimeter must indicate  <u>0 ... 10 Ω</u> 	<u>Component:</u> Throttle-valve switch (Idle contact)
<u>Program switch position "Ω"</u>	9		
<u>Measuring equipment:</u> Multimeter (Ω range)		<div>yes</div> <div>no</div>	<u>Operation:</u> Resistance at throttle-valve switch between term. 2 and term. 18
<u>Measuring range:</u> x 1 Ω			
<u>Connection:</u> Test sockets blue			
<u>Operation in vehicle:</u> Accelerator in rest position			
		<u>Continue testing with next test step.</u>	<u>Malfunction:</u> Resistance outside tolerance

Trouble-shooting:  
Adjustment: Using the throttle valve stop screw, the throttle valve must be set to a position just before it sticks. If the throttle-linkage has been bent out of shape, straighten it. Does the throttle valve open completely? Are the throttle-linkage and the gas pedal O.K.? If necessary, straighten the linkage. The throttle-linkage can stick because of the carpeting, etc.  
 Is the problem still there? Check the following leads for a break using an ohmmeter:

- From multiple plug Term. 2 to throttle valve switch Term. 2.
- From throttle valve switch Term. 18 to multiple plug Term. 18.

Check plug connections.

Continued on D5



Top view of multiple plug  
KI. 1 = Term. 1

Installation position of the components:

Throttle valve switch:  
At the front right of the engine compartment, on the intake manifold.

Control unit:  
In the passenger compartment, behind a cover in the footwell.

**D3**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



**D4**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



Trouble-shooting, test step 14 (continued)

Adjustment of the throttle valve switch (as of 9.81 model):

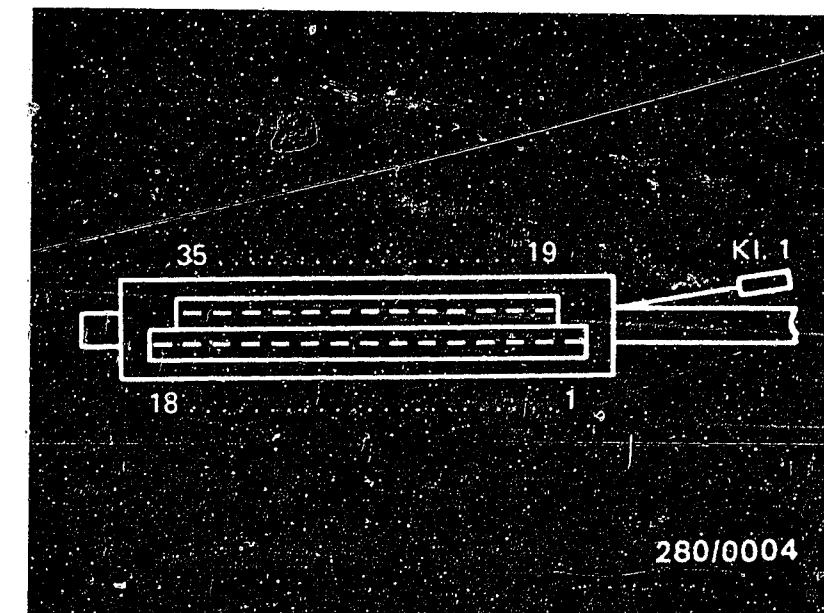
Release the fastening screws on the throttle valve switch slightly. Connect ohmmeter to the throttle valve switch between Term. 2 and Term. 18.

Turn the throttle valve switch to the right until you can hear the idle contact click (reading  $0 \Omega$ ).

Check the adjustment: Pull on the throttle-linkage slightly (open the throttle valve slightly). The idle contact must click audibly (reading  $\infty \Omega$ ).



Test step 15				
Operation		Reading	Testing	
Program switch position "V"	↓	Multimeter must indicate  0...10 Ω.	Component: Throttle-valve switch (Full-load contact)	
Program switch position: "Ω"	10		Operation: Resistance at throttle-valve switch between term. 3 and term. 18	
Measuring equipment: Multimeter (Ω range)			Malfunction: Resistance outside tolerance	
Measuring range: x 1 Ω		yes		
Connection: Test sockets blue		no		
Operation in vehicle: Accelerator in full-load position		Continue testing with next test step.		



Top view of multiple plug  
K1. 1 = Term. 1

#### Trouble-shooting:

For resistance measurements:

For testing, remove wiring-harness plug from test adapter and, if necessary, use circuit diagram. Set value approx. 0 Ω.

Important! Ignition "OFF" and ensure proper electrical connection when measuring.

From multiple plug term. 3 to throttle-valve switch term. 3

From throttle-valve switch term. 18 to multiple plug term. 18

Eliminate contact resistances in the plug-in connections.

Installation position of the components:

Throttle valve switch: On the right front in the engine compartment, on the intake manifold.

Control unit: In the passenger compartment, behind a cover in the driver's side footwell.

**D6**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas

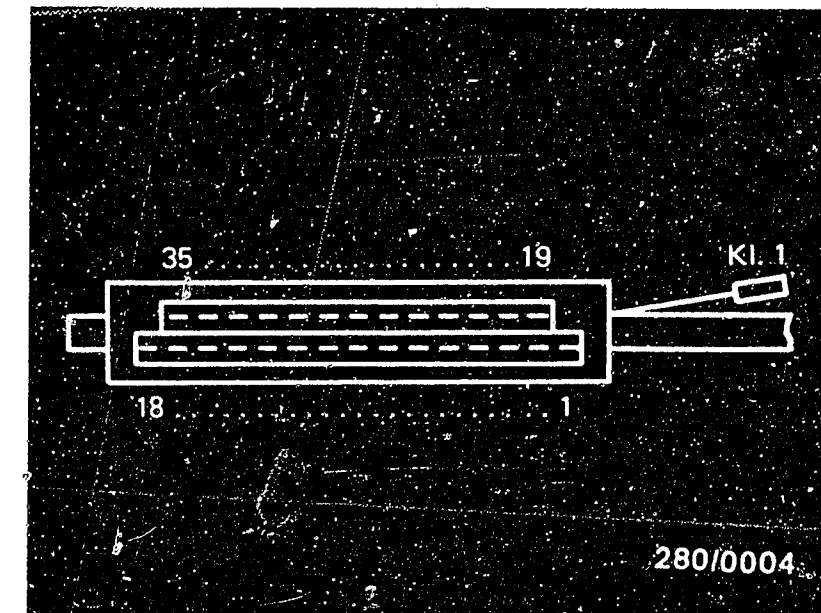


**D7**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



Test step 16			
Operation		Reading	Testing
Program switch position "V"	↓	Multimeter must indicate	Component: Temperature sensor I (Intake air)
Program switch position: "Ω"	11	30 Ω...30kΩ (depends on temperature).	Operation: Resistance at air-flow sensor between term. 27 and term. 6
Measuring equipment: Multimeter (Ω range)			
Measuring range: x 10 Ω or x 100 Ω			
Connection: Test sockets blue			Malfunction: Resistance outside tolerance
Operation in vehicle:			
		yes ↓ Continue testing with next test step.	
		no ↓	



Top view of multiple plug  
Kl. 1 = Term. 1

#### Installation position of the components:

##### Control unit:

In the passenger compartment, behind a cover in the driver's footwell.

##### Air-flow sensor:

In the engine compartment, near the right headlight.

##### Central ground:

On the left in the engine compartment, under a cover near the battery.

#### Trouble-shooting:

Measure resistance directly at temperature sensor I (intake air) in air-flow sensor.

At ambient temperature (approx. + 15 ... + 30°C): 1.45...3.3 kΩ

With engine at normal operating temperature (approx. + 80°C): 280...360 Ω

#### For resistance measurements:

For testing, remove wiring-harness plug from the test adapter and, if necessary, use circuit diagram. Set value approx. 0 Ω.

#### Important!

Ignition "OFF" and ensure proper electrical contact when measuring.

From multiple plug term. 27 to air-flow sensor term. 27

From air-flow sensor term. 6 to multiple plug term. 6

From multiple plug term. 5 to central ground.

Eliminate contact resistances in the plug-in connections.

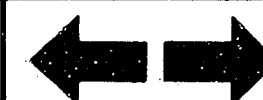
**D8**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



**D9**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



Test step 17		
Operation	Reading	Testing
Program switch position "V"	Multimeter must indicate  <u>30 <math>\Omega</math>...30k<math>\Omega</math></u> (depends on temperature).	Component: Temperature sensor II (Engine)
Program switch position: " $\Omega$ "		Operation: Resistance between control unit term. 10 and central ground
Measuring equipment: Multimeter ( $\Omega$ range)		Malfunction: Resistance outside tolerance
Measuring range: x 10 $\Omega$ or x 100 $\Omega$	yes	
Connection: Test sockets blue	no	
Operation in vehicle:	Continue testing with next test step.	

#### Trouble-shooting:

Measure resistance directly at temperature sensor II (engine) (white plug):

At ambient temperature (approx. + 15...+ 30°C): 1.3...3.6 k $\Omega$

With engine at normal operating temperature (approx. + 80°C): 250...390  $\Omega$

For resistance measurements:

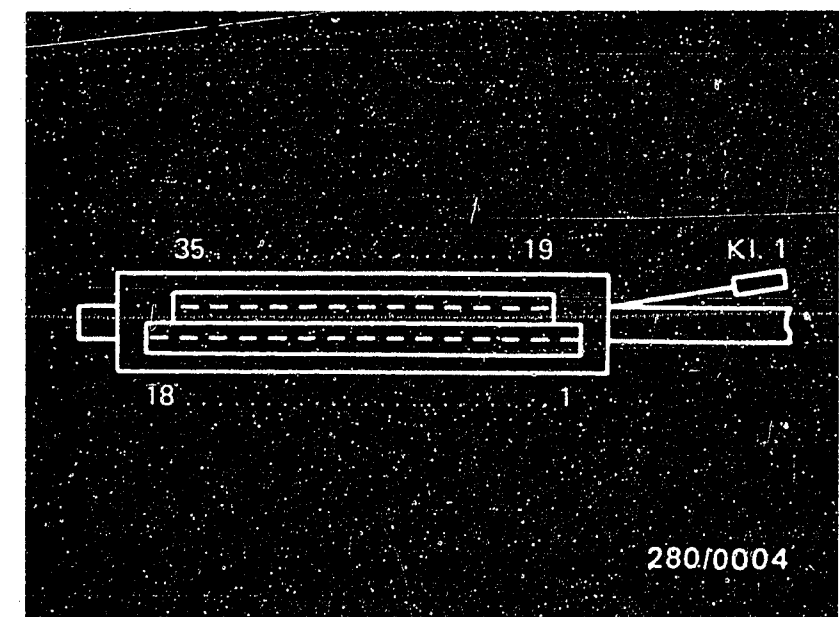
For testing, remove wiring-harness plug from the test adapter and, if necessary, use circuit diagram. Set value approx. 0  $\Omega$ .

Important! Ignition "OFF" and ensure proper electrical contact when measuring.

From multiple plug term. 10 to temperature sensor II (engine) term. 10

Lead 38 from temperature sensor II to central ground.

Eliminate contact resistances in the plug-in connections.



Top view of multiple plug  
KI. 1 = Term. 1

#### Installation position of the components:

##### Control unit:

In the passenger compartment, behind a cover in the driver's footwell.

##### Temperature sensor II:

In the engine compartment, in the cooling water circuit, near the right solenoid-operated injection valve.

##### Central ground:

On the left in the engine compartment, under a cover near the battery.

**D10**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas

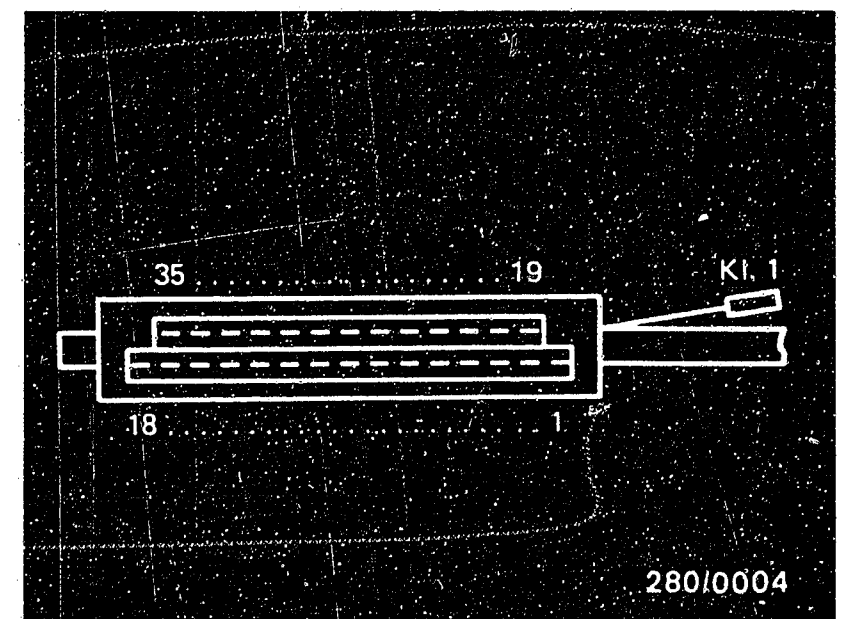


**D11**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



Test step 18		
Operation		Reading
Program switch program "V"	↓ 13	Multimeter must indicate  0...10 Ω.
Program switch position: "Ω"		
Measuring equipment: Multimeter (Ω range)	<div> <div>yes</div> <div>no</div> </div>	<div> <div>Component:</div> <div>Ground connection of output stage</div> </div>
Measuring range: x 1 Ω		
Connection: Test sockets blue		
Operation in vehicle:	<div> <div>Continue testing with next test step.</div> </div>	<div> <div>Operation:</div> <div>Ground connection of control unit</div> </div>
		<div> <div>Malfunction:</div> <div>Resistance outside tolerance</div> </div>



Top view of multiple plug

K1. 1 = Term. 1

#### Trouble-shooting:

For resistance measurements:

For testing, remove wiring-harness plug from the test adapter and, if necessary, use circuit diagram. Set value approx. 0 Ω.

Important! Ignition "OFF" and ensure proper electrical contact when measuring.

From multiple plug term. 16 to central ground.

From multiple plug term. 5 to central ground.

Eliminate contact resistances at the plug-in connections.

Installation position of the components:

Control unit: In the passenger compartment, behind a cover in the driver's side footwell.

Central ground: On the left in the engine compartment, under a cover near the battery.

**D 12**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



**D 13**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



Test step 19			
Operation		Reading	Testing
Program switch position "V"	↓	Multimeter must indicate  0...10 Ω.	Component: Ground connection of output stage
Program switch position: "Ω"	14		
Measuring equipment: Multimeter (Ω range)			Operation: Ground connection of control unit
Measuring range: x 1 Ω			
Connection: Test sockets blue		yes ↓ Conduct fuel pressure test	no ↓ Malfunction: Resistance outside tolerance
Operation in vehicle:  _____			

#### Trouble-shooting:

For resistance measurements:

For testing, remove wiring-harness plug from the test adapter and, if necessary, use circuit diagram. Set value approx. 0 Ω.

Important! Ignition "OFF" and ensure proper electrical contact when measuring.

From multiple plug term. 17 to central ground.

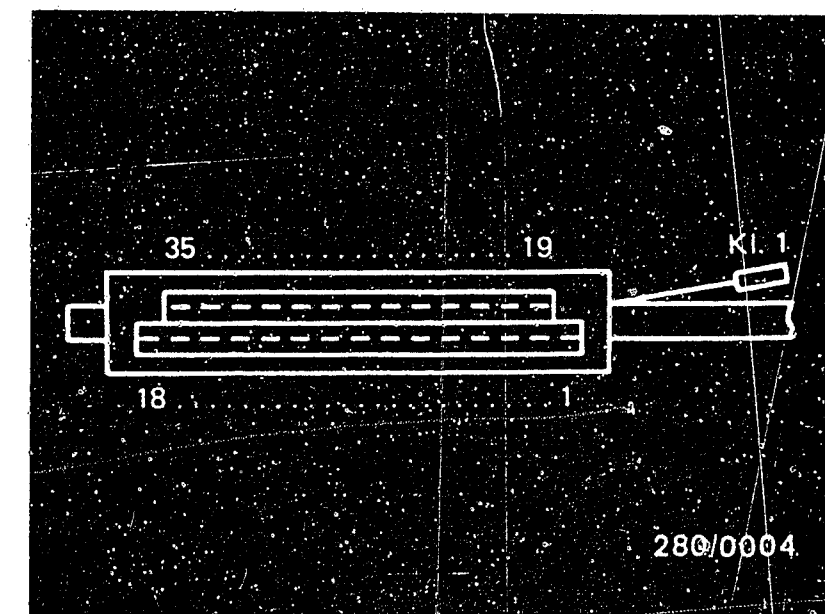
From multiple plug term. 5 to central ground.

Eliminate contact resistances at the plug-in connections.

Installation position of the components:

Control unit: In the passenger compartment, behind a cover in the driver's side footwell.

Central ground: On the left in the engine compartment, under a cover near the battery.



Top view of multiple plug

KI. 1 = Term. 1

**D14**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



**D15**

Test chart for universal test adapter  
Citroen CX GTI/Prestige/Pallas



Testing with the universal test adapter is now completed.

The fuel pressure test must now be performed.

If a fault is found during a test, the test must be repeated after the fault has been eliminated.

The fuel pressure test is described on Coordinates  
D 17 ... E 4.

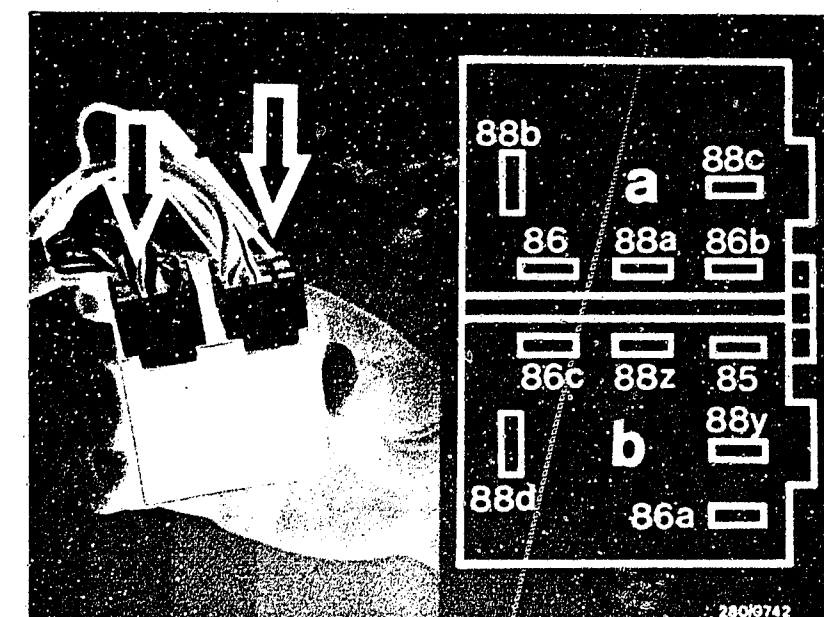
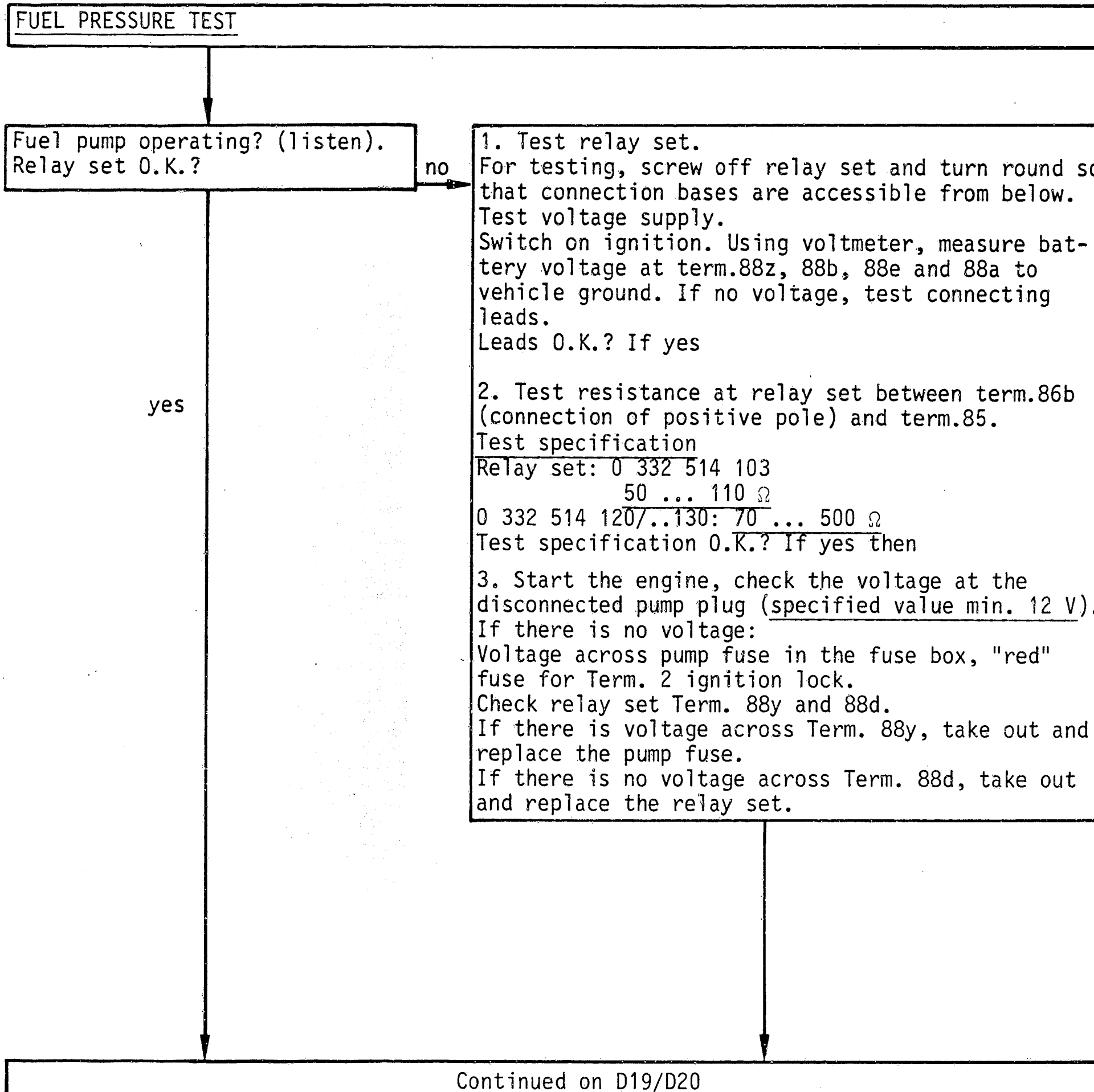
**D 16**

Test chart for universal test adapter

Citroen CX GTI/Prestige/Pallas



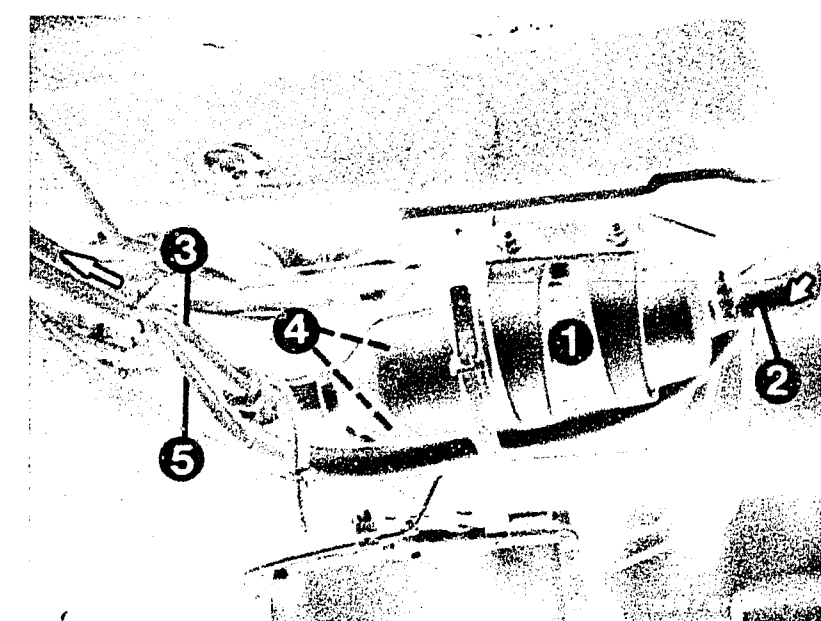




Measure voltage on the back of the plug.

a = Jetronic wiring harness  
 b = Vehicle wiring harness

- 1 = Electric fuel pump
  - 2 = Fuel intake line
  - 3 = Fuel delivery line
  - 4 = Fuel pump plug
  - 5 = Fuel return line
- Arrow = Direction of fuel flow



# Fuel pressure test (continued)

yes

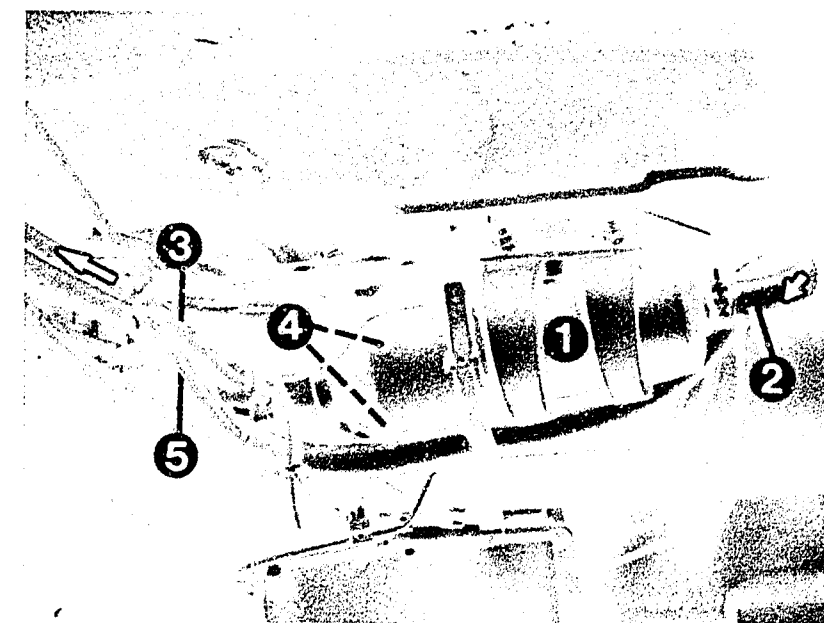
4. Is the ground connection for the fuel pump O.K.?

If not, check the ground connection and ground lead for a break and for good contacts.  
The ground connection is located at the clamping location on the right tank suspension (up to 8.81 model) or at the back right on the taillight (as of 9.81 model).

5. Does the fuel pump run?

If not, start the engine, check the voltage on the disconnected pump plug (specified value min. 12 V).  
If there is voltage, take out and replace the fuel pump.

Positive terminal: 9.5 mm flat-pin terminal  
Negative terminal: 6.3 mm flat-pin terminal



1 = fuel pump  
4 = fuel pump plug  
arrow = direction of fuel flow

Fuel pressure O.K.?

Test specification

2.3 ... 2.7 bar

Test specification reached?

no

Testing:

Disconnect hose from the start valve. Connect pressure gauge.

Caution:

When removing the fuel hose make sure that no fuel gets onto hot parts of the engine.

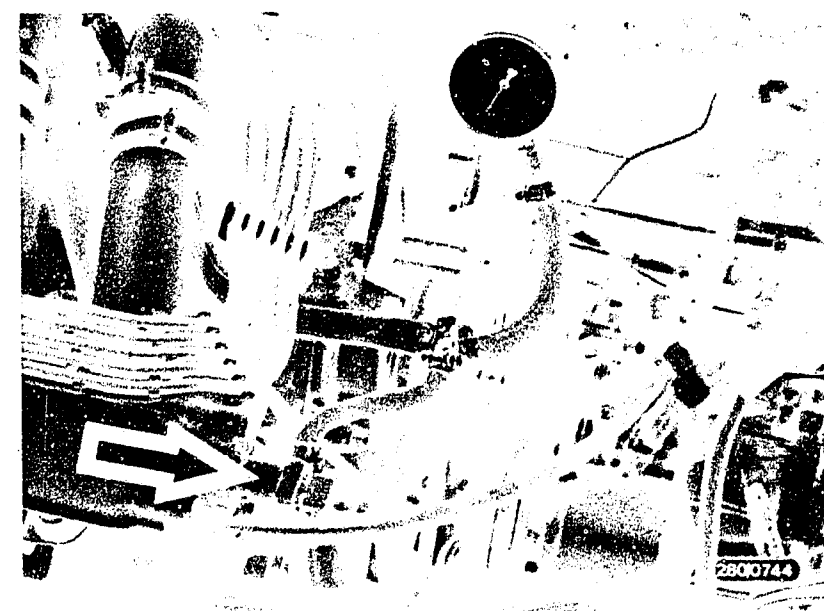
yes

yes

Continued on D23/D24

Continued on D21/D22

Arrow = Start valve



D 19

Fuel pressure test  
Citroen CX GTI/Prestige/Pallas



D 20

Fuel pressure test  
Citroen CX GTI/Prestige/Pallas



## Fuel pressure test (continued)

### Testing the fuel pressure

Connect the connections of the pressure testers into the fuel delivery line on the start valve.

If using pressure tester KDJE-P 100, close the hollow screw.

Plug the end of the hose onto the start valve, and plug the Y-piece onto the hose to the fuel-distribution pipe.

Make sure there are no leaks.

Remove the hose between air filter and air-flow sensor.

Switch on ignition, slightly deflect air-flow sensor flap. (Pump contact must close).

Fuel pump must operate.

Fuel pump pressure 2.3 ... 2.7 bar

Put the air hose back on the air-flow sensor and tighten the hose clip securely (no leaks).

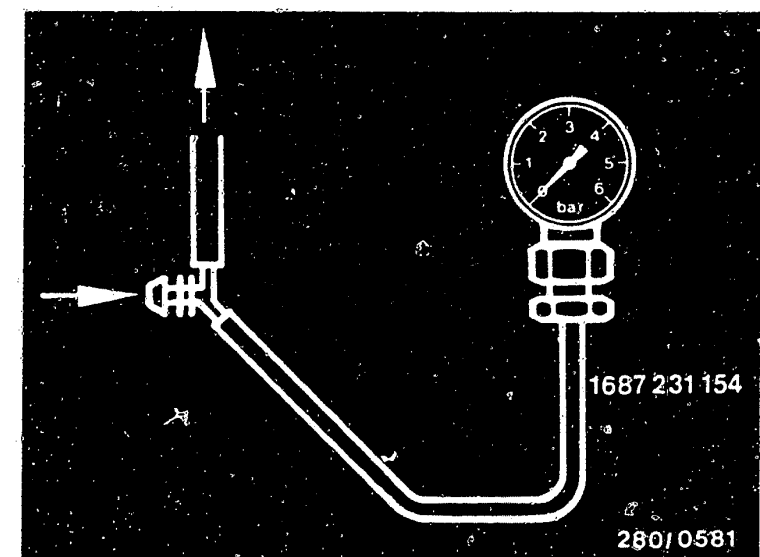
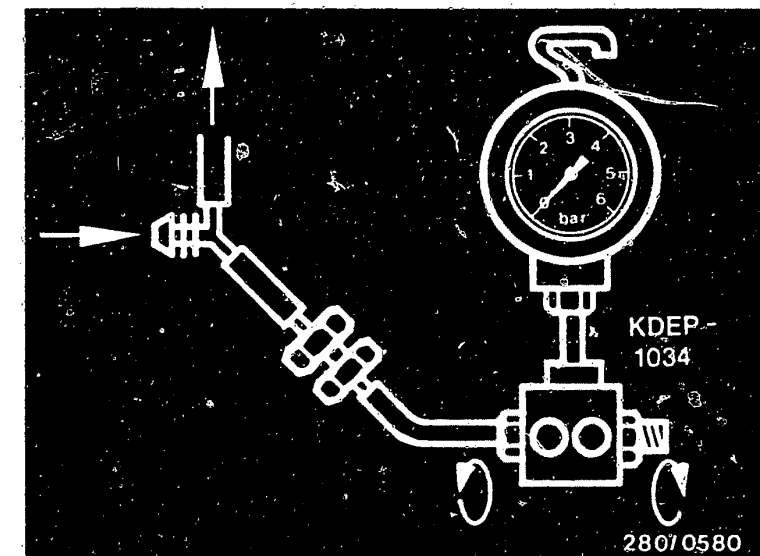
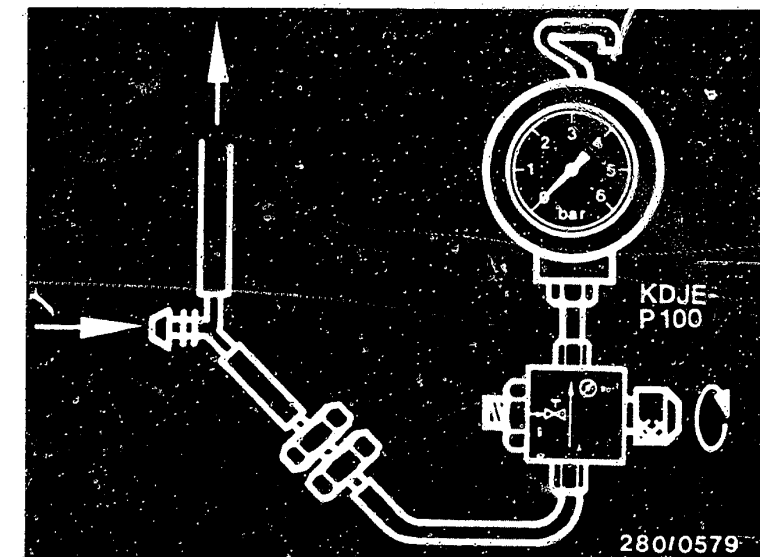
Run the engine at idle:

Fuel pump pressure approx. 2.0 bar.

yes

yes

Continued on D23/D24



**D21**

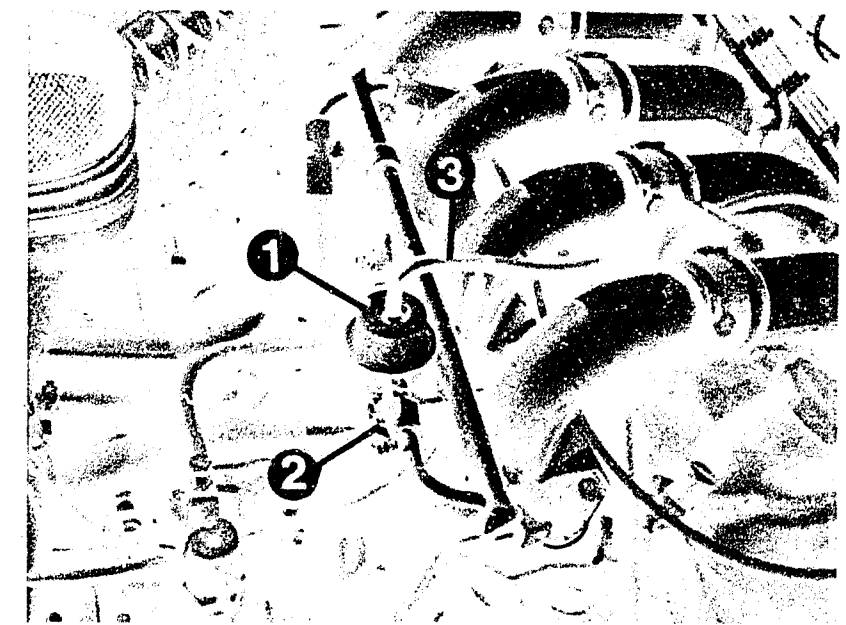
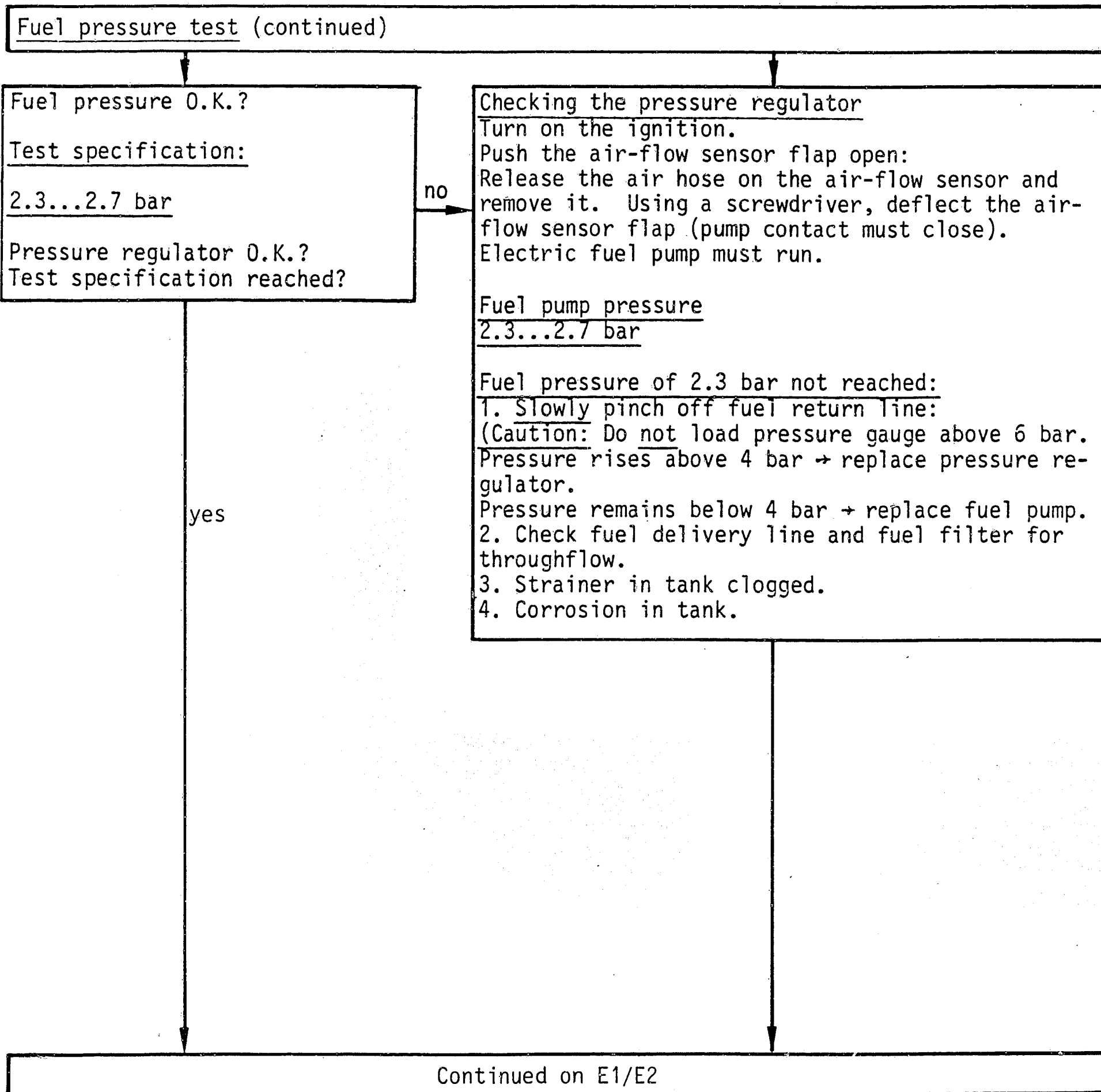
Fuel pressure test  
Citroen CX GTI/Prestige/Pallas



**D22**

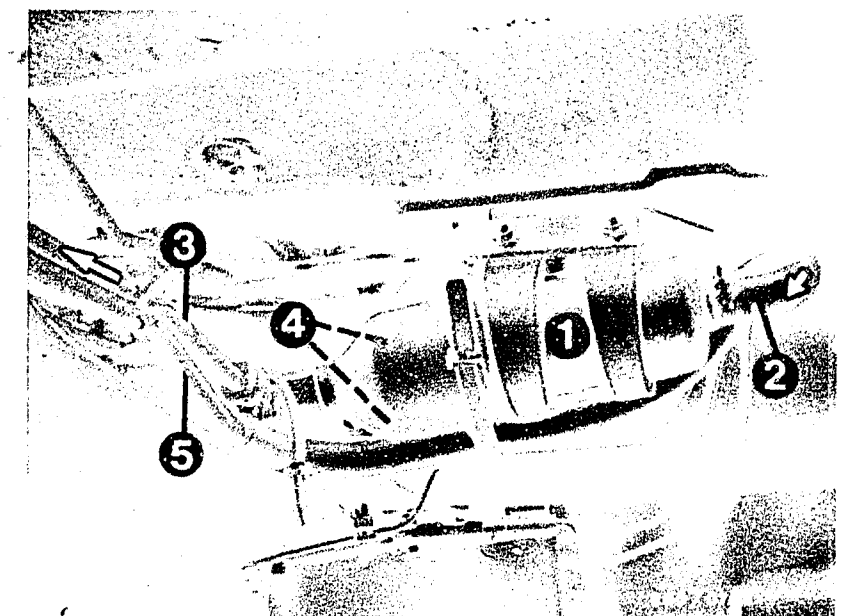
Fuel pressure test  
Citroen CX GTI/Prestige/Pallas





- 1 = pressure regulator
- 2 = fuel return hose
- 3 = to intake manifold

- 1 = Electric fuel pump
- 2 = Fuel intake line
- 3 = Fuel delivery line
- 4 = Fuel pump plug
- 5 = Fuel return line



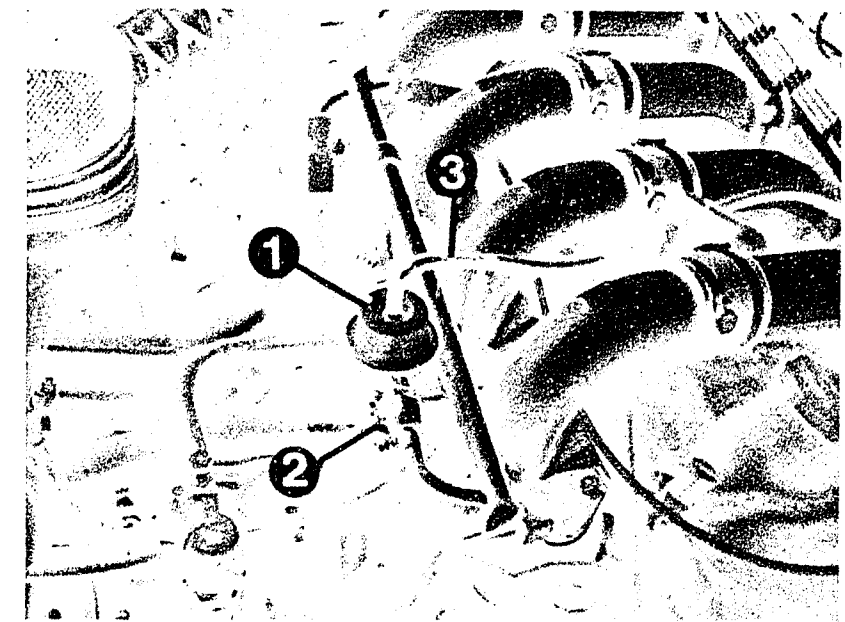
## Fuel pressure test (continued)

Fuel pressure exceeds 2.7 bar:

1. Fuel return line clogged or pinched off.
2. Take out and replace pressure regulator.  
After completion of the test, the hose must be  
screwed back on the air-flow sensor. Check the  
connection to the air-flow sensor for leaks.

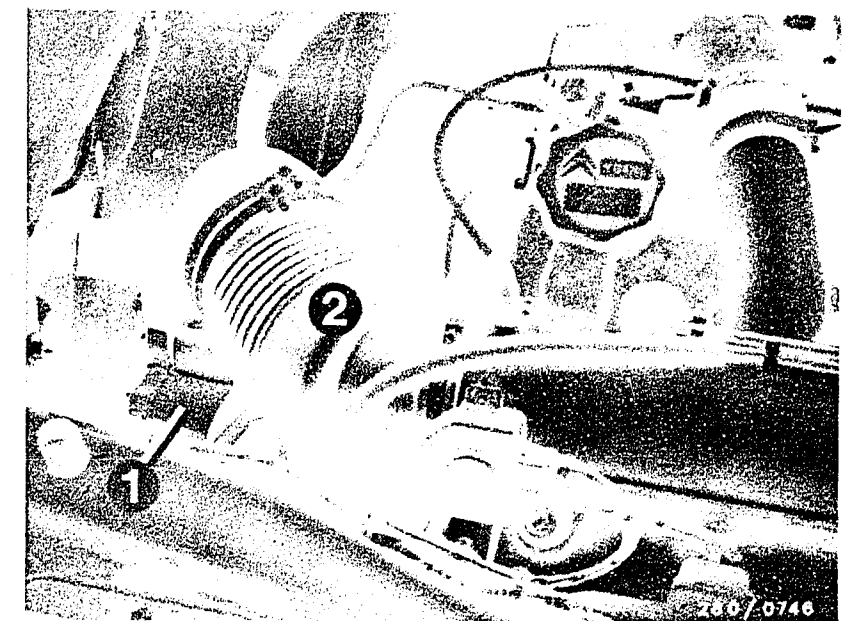
yes

Continued on E3/E4



- 1 = Pressure regulator
- 2 = Fuel return hose
- 3 = To the intake manifold

- 1 = Air-flow sensor
- 2 = Hose between air-flow sensor and intake manifold



**E1**

Fuel pressure test  
Citroen CX GTI/Prestige/Pallas



**E2**

Fuel pressure test  
Citroen CX GTI/Prestige/Pallas



## Fuel pressure test (continued)

Does fuel pressure remain constant after the engine has started?

no

Test fuel pump contact in air-flow sensor:

Dismantle hose between air filter and air-flow sensor. Remove plug.

Connect ohmmeter to term. 36 and term. 39 of the air-flow sensor.

Push air-flow sensor flap open manually.

Indicator must switch from  $\infty \Omega$  to  $0 \Omega$ .

If not, replace air-flow sensor.

Replace hose between air filter and air-flow sensor and screw tight.

Test for leaks.

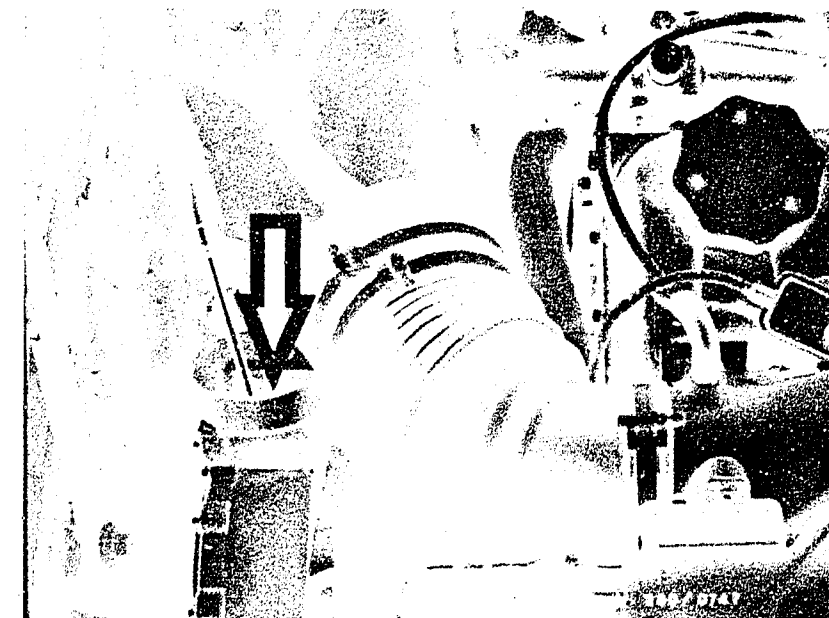
yes

The fuel pressure test is now completed.

If the fault has not been found or if you require further information and instructions on how to remedy the fault, continue with the trouble-shooting program of your choice.

Detailed trouble-shooting → see B 3

Direct trouble-shooting → see B 5



Push open the sensor flap in the air-flow sensor.

**E3**

Fuel pressure test  
Citroen CX GTI/Prestige/Pallas



**E4**

Fuel pressure test  
Citroen CX GTI/Prestige/Pallas



## STARTING MOTOR OPERATES, ENGINE FAILS TO START OR STARTS ONLY WITH GREAT DIFFICULTY

Trouble-shooting program according to customer complaints

How to use the following trouble-shooting program

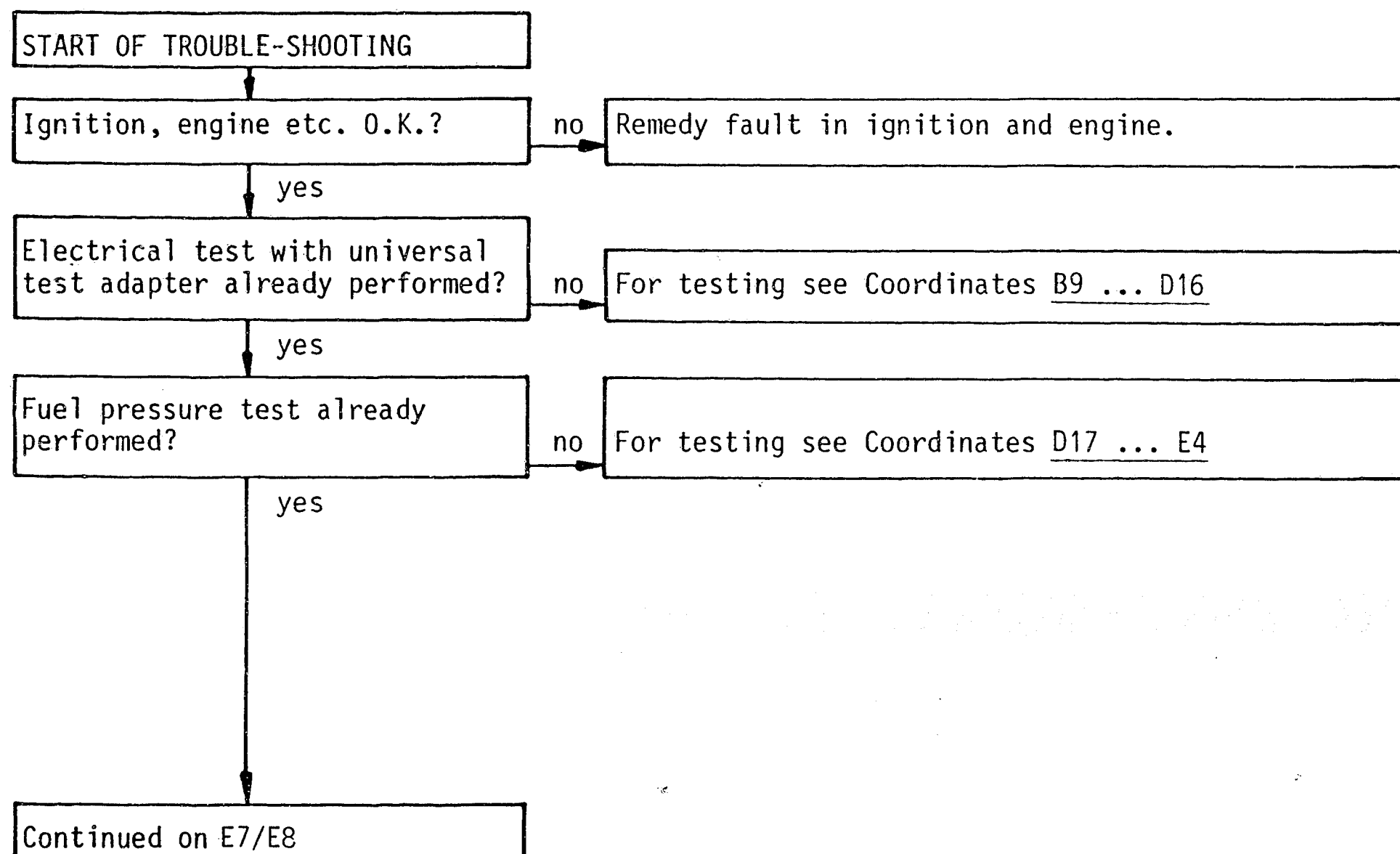
The program is divided into three rows of boxes:

- The left-hand row contains the questions on the tests.
- The middle row contains descriptions of the testing and adjustment operations on the components.
- The right-hand row contains the illustrations belonging to the text and explains the illustrations.

If the questions can be answered conclusively with "yes" without testing, proceed to the next question below.

If, on the other hand, the answer to the question is "no", and you suspect a fault, branch to the middle row of boxes and carry out the tests given there.

When you have finished testing continue trouble-shooting at the point at which you branched off.



**E5**

St. motor oper., eng. does not start  
Citroen CX GTI/Prestige/Pallas



**E6**

St. motor oper., eng. does not start  
Citroen CX GTI/Prestige/Pallas





Starting motor operates, engine fails to start or starts only with great difficulty  
(continued)

Start valve O.K.?

no

Functional test: Test power supply to start valve when starting. To do this, remove plug from start valve and connect voltmeter to term. 46 and term. 45/term. 47 of start valve plug.  
Coolant at ambient temperature (approx. + 15°... 30°C):  
Voltage reading min. 6 V

Coolant with engine at normal operating temperature (approx. + 80°C):  
Voltage reading approx. 0 V

Test the following leads for continuity with ohmmeter (set value approx. 0 Ω)

Lead from start valve term. 46 to thermo-time switch term. W.

Lead from start valve term. 45 to thermo-time switch term. G.

Lead from start valve term. 47 to relay set term. 86.

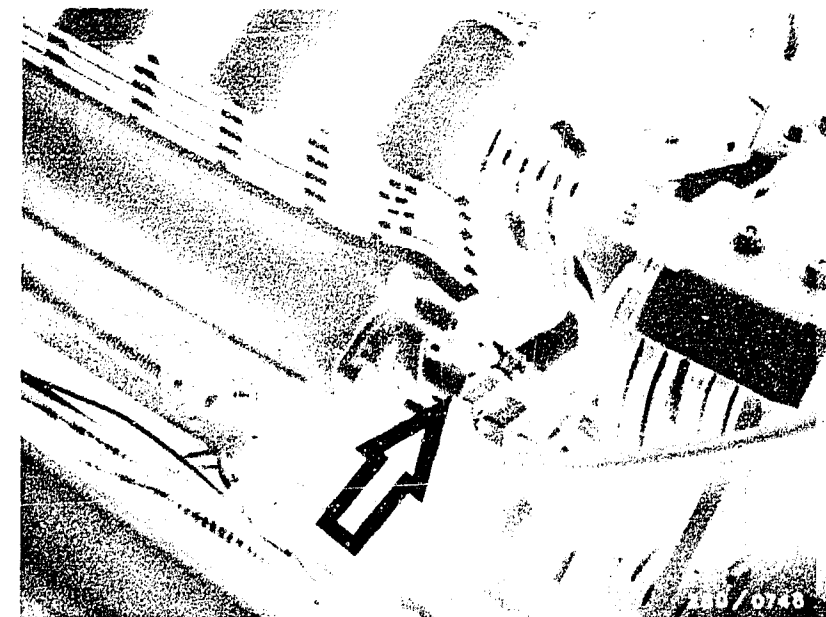
Check ground connection of thermo-time switch.

yes

yes

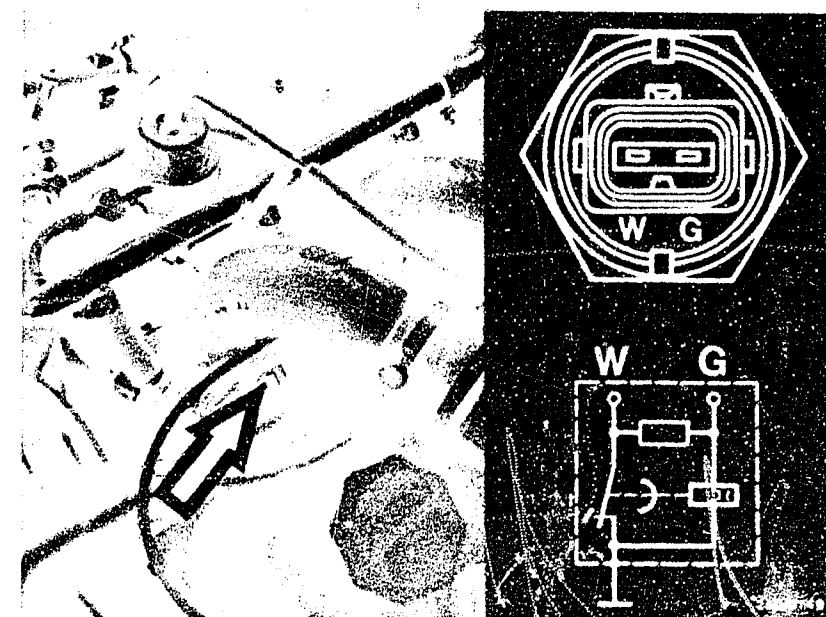
Continued on E13/E14

Continued on E9/E10



Arrow = Start valve

Arrow = Thermo-time switch



**E7**

St. motor oper., eng. does not start  
Citroen CX GTI/Prestige/Pallas



**E8**

St. motor oper., eng. does not start  
Citroen CX GTI/Prestige/Pallas



Starting motor operates, engine fails to start or starts only with great difficulty  
(continued)

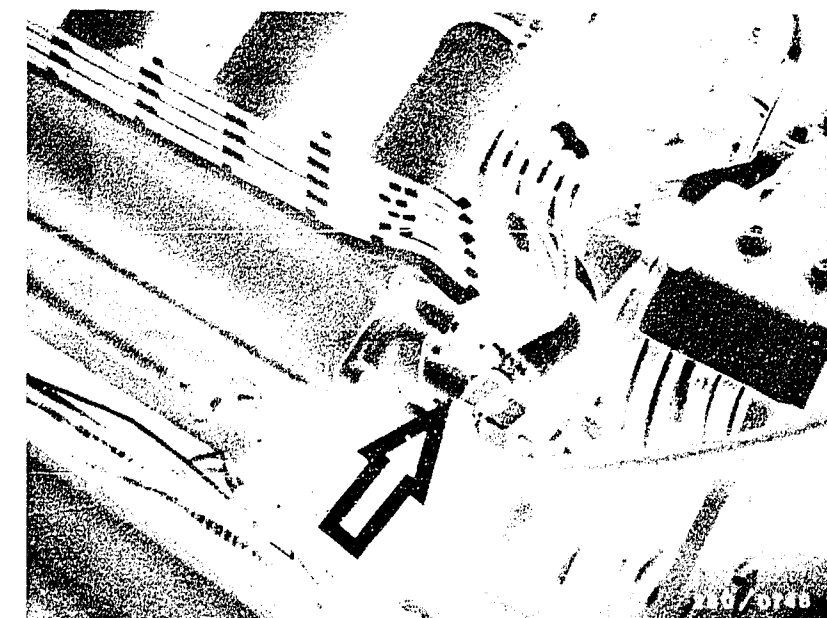
Electric test of start valve:

Connect ohmmeter to start valve (remove plug):  
Set value approx.  $4\ \Omega$ .

Mechanical test of start valve:

Take the start valve off the intake manifold and hold it in a container. (Caution: Fire hazard!). Disconnect lead 1 from the ignition coil (disconnect connecting plug from the ignition trigger box).

When starting at temperatures below ambient temperature (approx.  $+15^{\circ}$  ...  $30^{\circ}$  C) the start valve must squirt (max. 8 sec.). With the engine at normal operating temperature (approx.  $+80^{\circ}$  C) the start valve must not squirt. With the ignition switched on and the pressure built up the start valve must likewise not squirt.



Arrow = Start valve

yes

yes

Continued on E13/E14

Continued on E11/E12

**E9**

St. motor oper., eng. does not start  
Citroen CX GTI/Prestige/Pallas



**E10**

St. motor oper., eng. does not start  
Citroen CX GTI/Prestige/Pallas



Starting motor operates, engine fails to start or starts only with great difficulty  
(continued)

yes

Carry out squirt test for engine at normal operating temperature (approx. + 80°C) as follows:  
Remove plug from thermo-time switch and ground term. W.

Testing the start valve for leaks:

1. When installed

Pinch off the fuel delivery line to the start valve. If engine then runs smoothly, replace start valve.

2. When removed

Remove start valve (Caution! Fire hazard!)  
Fuel line and electric lead remain connected (place collector vessel under the start valve).  
Build up fuel pressure (unscrew pipe piece between air filter and air-flow sensor. Ignition "ON" and deflect air-flow sensor flap).

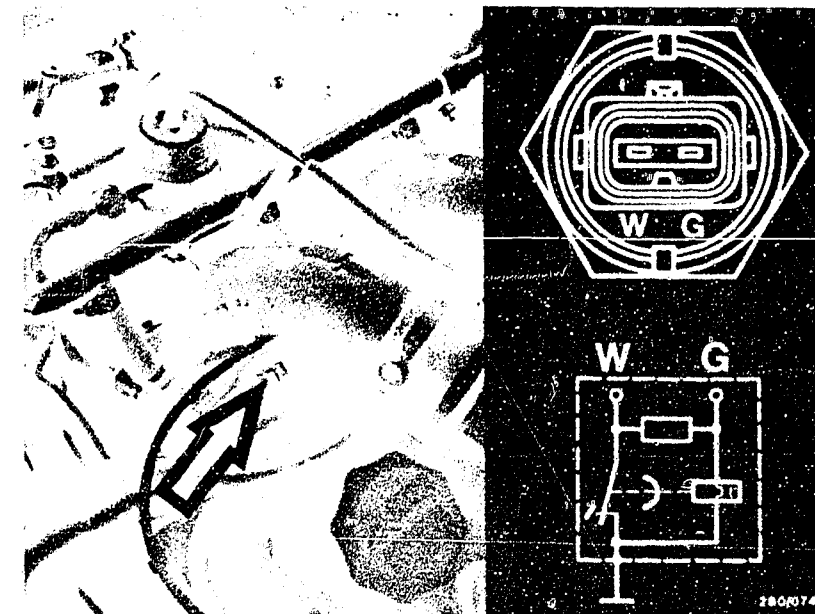
Pushing open the air-flow sensor flap:

Release the air hose on the air-flow sensor and remove it. Ignition "ON".  
Using a screwdriver, deflect the air-flow sensor flap.

Test specification: Within one minute max. 1 drop may form at the mouth of the valve.

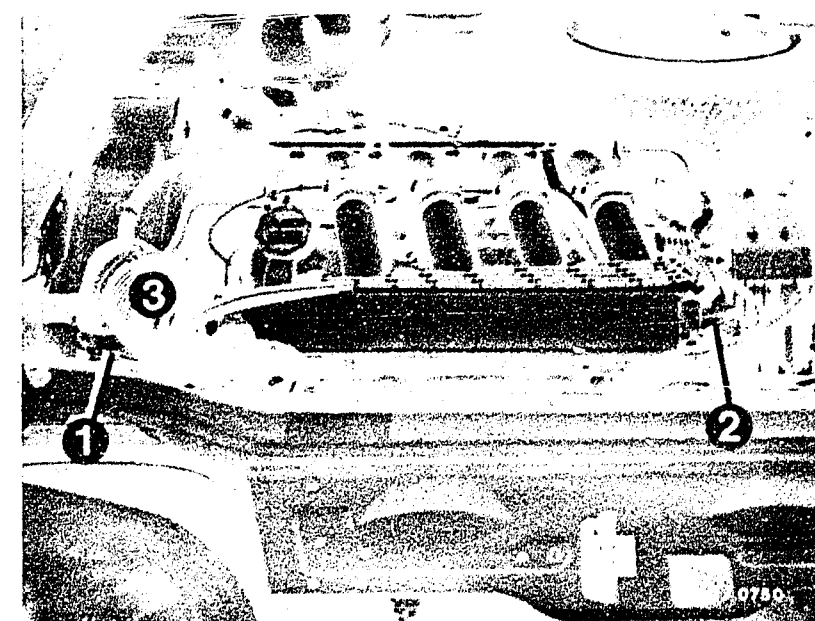
N.B.! Once the test has been completed, the hose must be screwed back on the air-flow sensor.  
Tighten the hose clip securely (no leaks).

Continued on E13/E14



Arrow = Thermo-time switch

- 1 = Air-flow sensor
- 2 = Start valve
- 3 = Air hose



**E11**

St. motor oper., eng. does not start  
Citroen CX GTI/Prestige/Pallas



**E12**

St. motor oper., eng. does not start  
Citroen CX GTI/Prestige/Pallas



Starting motor operates, engine fails to start or starts only with great difficulty  
(continued)

Thermo-time switch O.K.?

no

#### Electrical test

Test the thermo-time switch 35°/8 sec. as follows:  
Disconnect plug and make direct resistance  
measurement at thermo-time switch using ohmmeter:

Thermo-time switch 0 280 130 214 (35°/8 sec.)

measured between term. "G" and ground

Ambient temperature  
(below + 30°C): 25...40 Ω

Normal operating engine  
temperature (above + 80°C): 50...80 Ω

measured between term. "W" and ground

Ambient temperature  
(below + 30°C): 0 Ω

Normal operating engine  
temperature (above + 80°C): 100...160 Ω

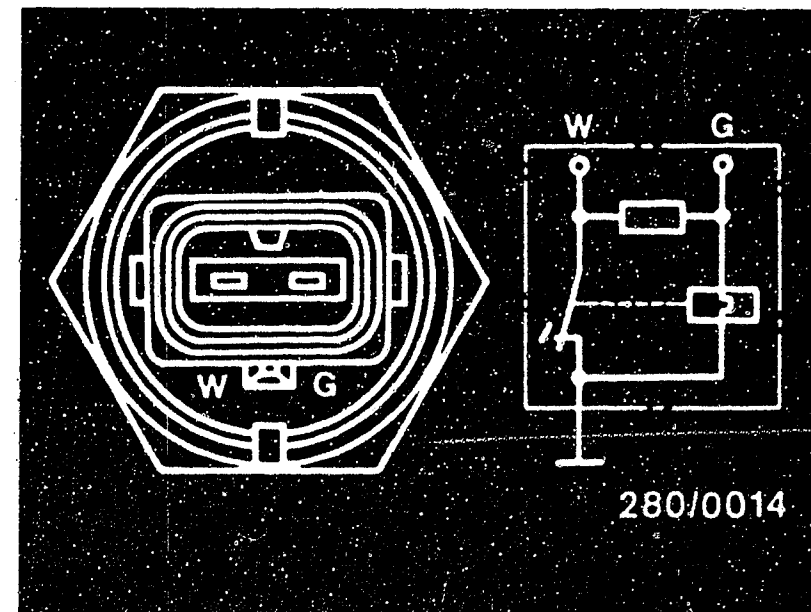
measured between term. "G" and "W"

Ambient temperature  
(below + 30°C): 25...40 Ω

Normal operating engine  
temperature (above + 80°C): 50...80 Ω

yes

Continued on E15/E16



280/0014

Thermo-time switch

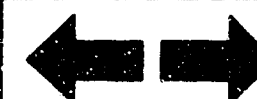
**E13**

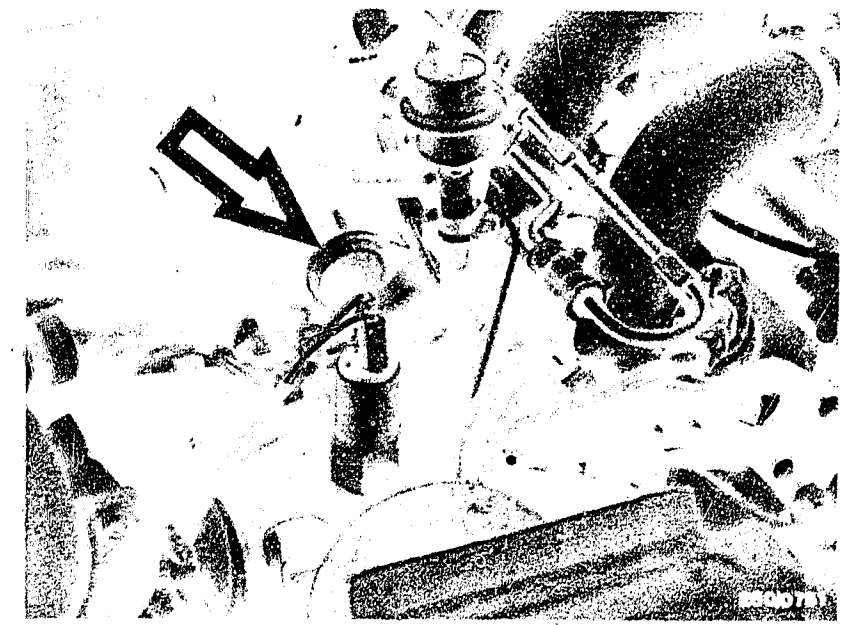
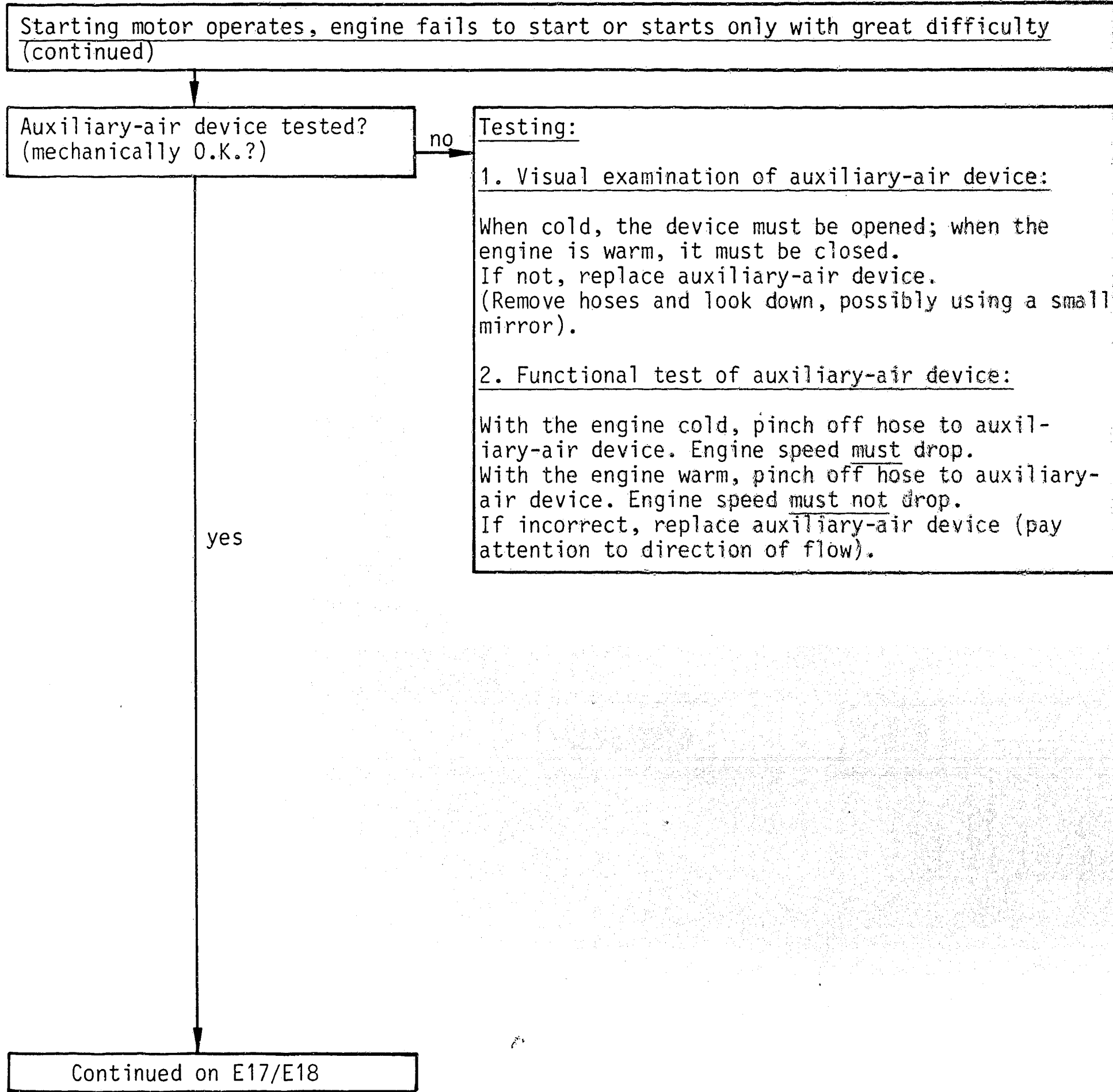
St. motor oper., eng. does not start  
Citroen CX GTI/Prestige/Pallas



**E14**

St. motor oper., eng. does not start  
Citroen CX GTI/Prestige/Pallas





Arrow = Auxiliary-air device

Starting motor operates, engine fails to start or starts only with great difficulty  
(continued)

Temperature sensors tested?

no

### Testing

Temperature sensor I measures the intake air temperature and is located in the air duct of the air-flow sensor. Measure the following values between term. 27 and term. 6 of air-flow sensor:

At ambient temperature  
(approx. + 15° C...+30° C): 1.45...3.3 kΩ

With engine at normal op. temp.  
(approx +80° C): 280 ... 360 Ω

Take measurements with ohmmeter directly on temperature sensor II (engine) (white plug).  
Measurement of resistance across Term. 13 and Term. 49 (ground):

At ambient temperature  
(approx. +15° C...+30° C): 1.30...3.6 kΩ

With engine at normal op. temp.  
(approx. +80° C): 250 ... 390 Ω

If incorrect, check for open circuit or short circuit in the following leads using ohmmeter:

### Temperature sensor I:

- From multiple plug term. 27 to air-flow sensor term. 27.
- From air-flow sensor term. 6 to multiple plug term. 6.

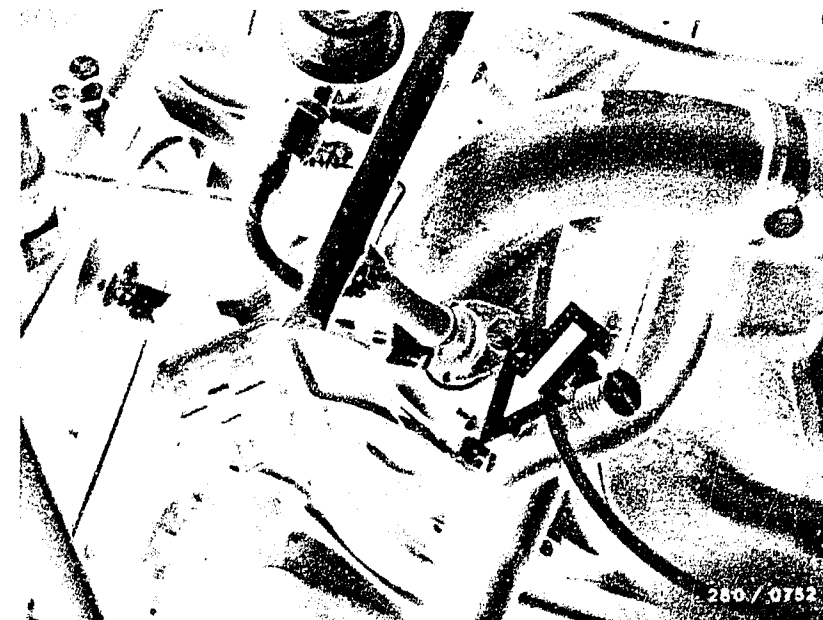
### Temperature sensor II

- From multiple plug term. 13 to temperature sensor II term. 13.
- From temperature sensor II term. 49 to central ground (lead 49).

Test all contacts in plug connections.

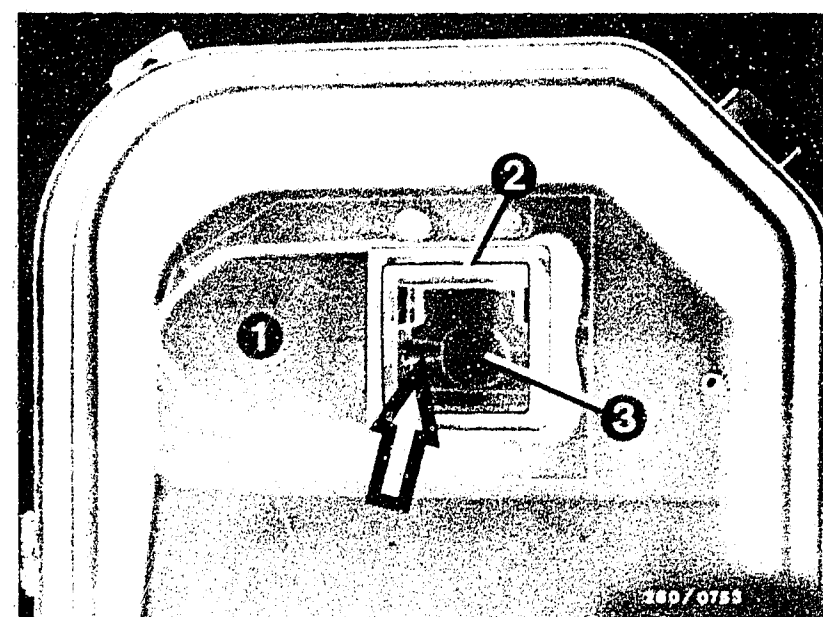
yes

Continued on E19/E20



Arrow = Temperature sensor II  
(Engine)  
(White plug)

Arrow = Temperature sensor I  
1 = Air filter cover  
2 = Air-flow sensor  
3 = Air-flow sensor flap



**E17**

St. motor oper., eng. does not start  
Citroen CX GTI/Prestige/Pallas



**E18**

St. motor oper., eng. does not start  
Citroen CX GTI/Prestige/Pallas





Starting motor operates, engine fails to start or starts only with great difficulty  
(continued)

Air-flow sensor O.K.?

no

Removal: Remove 4 wing screws on the air filter. Release the rubber-metal fastening and disconnect the electrical connection. Take out the air-flow sensor together with the upper part of the air filter. Fastened using 4 screws.

Testing:

Unscrew the hose from the air-flow sensor. Open air-flow sensor flap by hand.

It must be possible to open the air-flow sensor flap with uniform ease from its fully closed position to its fully open position. When released, the flap must close completely by itself. When the air-flow sensor flap is opened it must not catch at any point. Watch for any indications of abrasion or rubbing. Clean air-flow sensor of the inside is very dirty and rub out with a lint-free cloth. If there are any signs of abrasion or rubbing, replace the air-flow sensor. Connect ohmmeter to term. 7 and term. 8 of air-flow sensor.

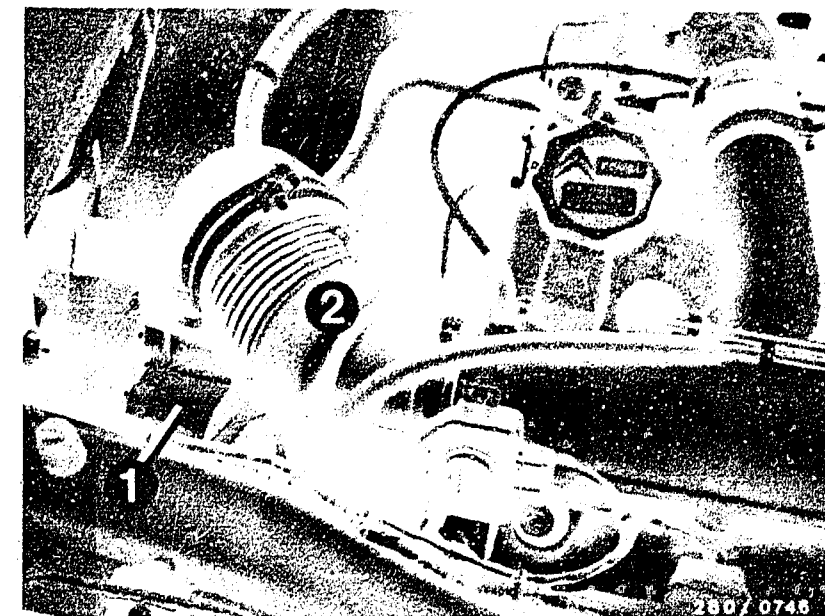
Test specification: 100...500  $\Omega$

When re-installing, make sure position is correct, using the rubber stoppers as a guide. Do not forget the intermediate flange!

N.B.! Once the test has been completed, the hose must be screwed back on the air-flow sensor. Check the connection for leaks.

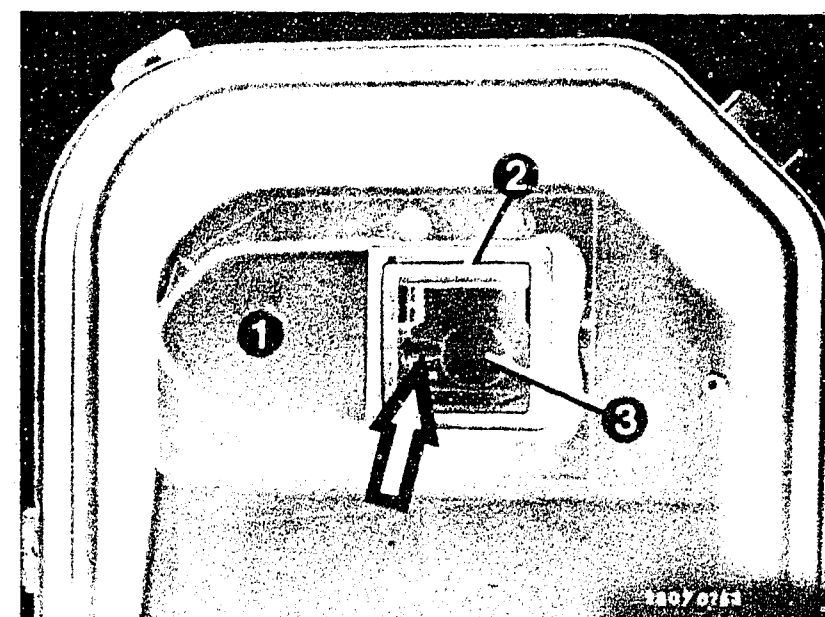
yes

Continued on E21/E22



1 = Air-flow sensor  
2 = Hose between air-flow sensor and intake manifold

Arrow = Temperature sensor I  
1 = Air filter cover  
2 = Air-flow sensor  
3 = Air-flow sensor flap



**E19**

St. motor oper., eng. does not start  
Citroen CX GTI/Prestige/Pallas



**E20**

St. motor oper., eng. does not start  
Citroen CX GTI/Prestige/Pallas





Starting motor operates, engine fails to start or starts only with great difficulty  
(continued)

Are all hose lines and electric leads securely connected? Visual examination.  
Is the air-intake system leak-tight?

no

Check whether hoses of air-intake system and of fuel line system are correctly attached, not kinked or damaged. If necessary, replace hoses. Eliminate leaks by using new seals or by re-tightening the connecting screws.  
Testing for leaks: Seal off the exhaust tail pipe, unscrew the pipe between the air filter and the air-flow sensor on the air-flow sensor end, and seal the air-flow sensor duct.  
Pull off hose after auxiliary-air device and blow air (0.3 bar) into the intake manifold with a compressed-air gun. Seal off the connection port on the auxiliary-air device. Open the throttle valve fully while doing this. Brush or spray all joints with soapy water. Bubbling or foaming indicates a leak.  
Check electric contacts for loose contacts.

yes

Testing completed for customer complaint

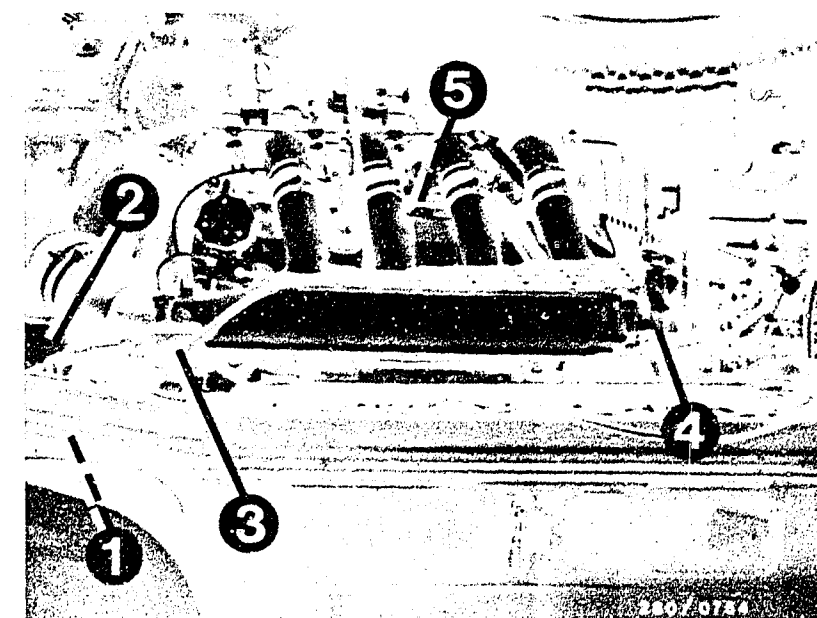
"Starting motor operates, engine fails to start"

Customer complaint remedied?

no

Further possibilities:

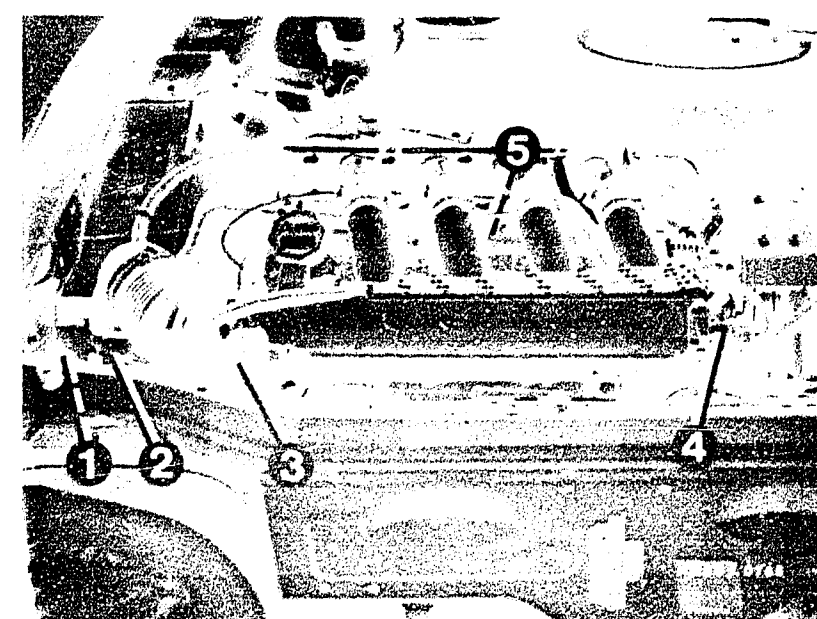
- Customer complaint incorrectly diagnosed (see Coordinates B3...B8). If the fault has not been detected by "direct trouble-shooting", see "detailed trouble-shooting" (Coordinates B3/B4).
- Engine not mechanically O.K. (compression, valve setting, valve timing, worn camshaft).



Up to 8.80 model

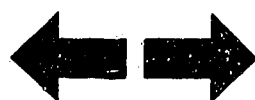
- 1 = Air filter
- 2 = Air-flow sensor
- 3 = Throttle-valve switch
- 4 = Start valve (blue plug)
- 5 = Auxiliary-air device

As of 9.80 model



**E21**

St. motor oper., eng. does not start  
Citroen CX GTI/Prestige/Pallas



**E22**

St. motor oper., eng. does not start  
Citroen CX GTI/Prestige/Pallas



## ENGINE STARTS BUT THEN DIES

Trouble-shooting program according to customer complaints

How to use the following trouble-shooting program

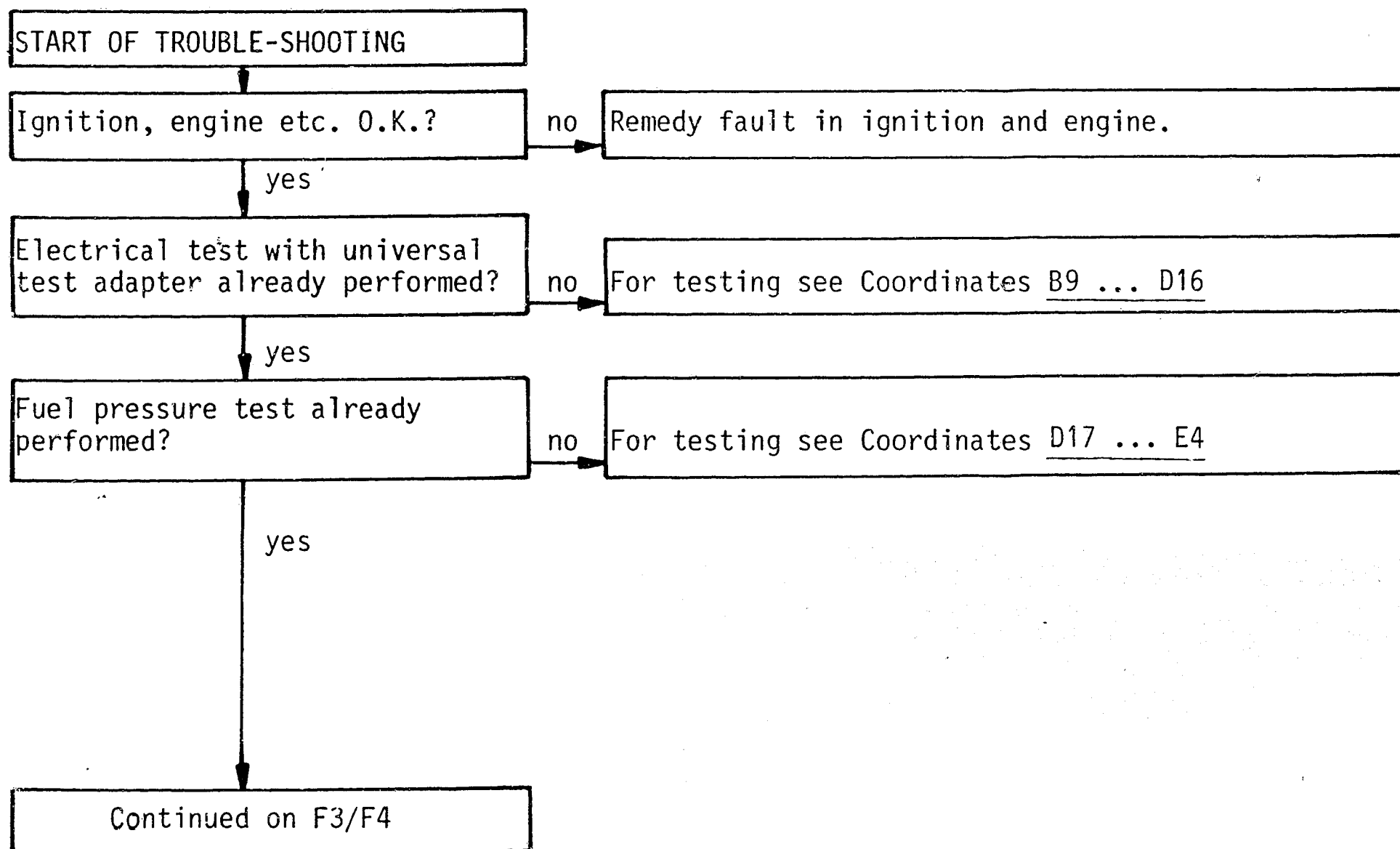
The program is divided into three rows of boxes:

- The left-hand row contains the questions on the tests.
- The middle row contains descriptions of the testing and adjustment operations on the components.
- The right-hand row contains the illustrations belonging to the text and explains the illustrations.

If the questions can be answered conclusively with "yes" without testing, proceed to the next question below.

If, on the other hand, the answer to the question is "no", and you suspect a fault, branch to the middle row of boxes and carry out the tests given there.

When you have finished testing continue trouble-shooting at the point at which you branched off.



**F1**

Engine starts but then dies  
Citroen CX GTI/Prestige/Pallas



**F2**

Engine starts but then dies  
Citroen CX GTI/Prestige/Pallas



Engine starts but then dies (continued)

Start valve O.K.?  
(Test for leaks)

no

Testing the start valve for leaks:

1. When installed

Pinch off the fuel delivery line to the start valve. If engine then runs smoothly, replace start valve.

2. When removed

Remove start valve (Caution! Fire hazard!)

Fuel line and electric lead remain connected (place collector vessel under the start valve).

Build up fuel pressure (unscrew pipe piece between air filter and air-flow sensor. Ignition "ON" and deflect air-flow sensor flap).

Pushing open the air-flow sensor flap:

Release the air hose on the air-flow sensor and remove it. Ignition "ON".

Using a screwdriver, deflect the air-flow sensor flap.

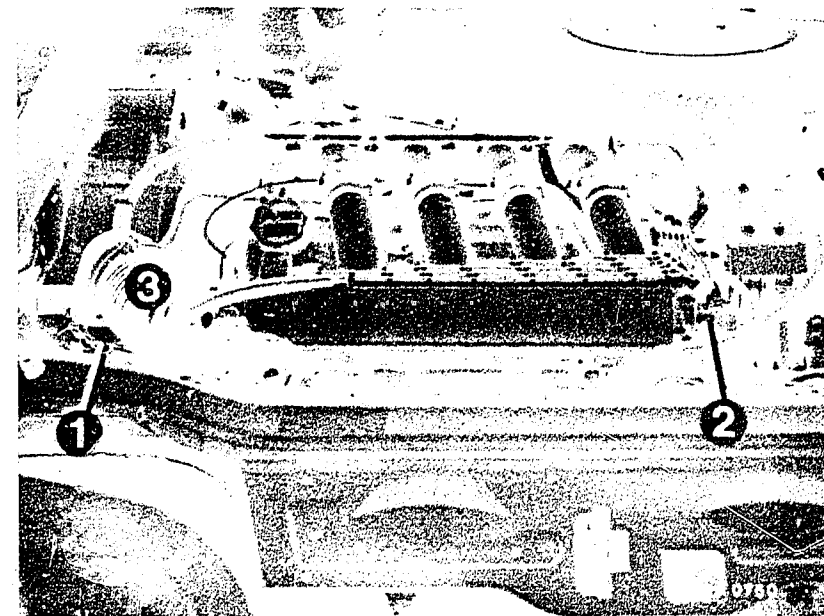
Test specification: Within one minute max. 1 drop may form at the mouth of the valve.

N.B.! Once the test has been completed, the hose must be screwed back on the air-flow sensor.

Tighten the hose clip securely (no leaks).

yes

Continued on F5/F6



1 = Air-flow sensor

2 = Start valve

3 = Air hose

**F3**

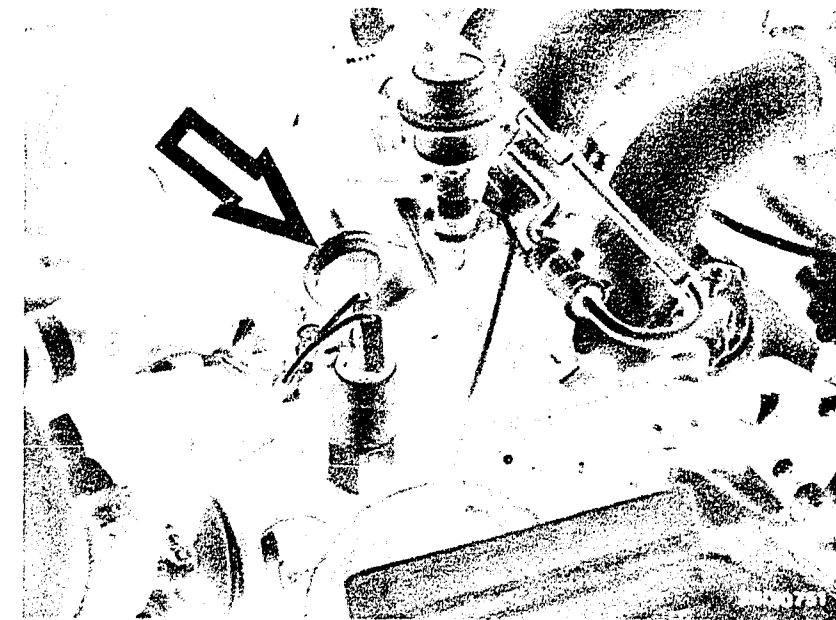
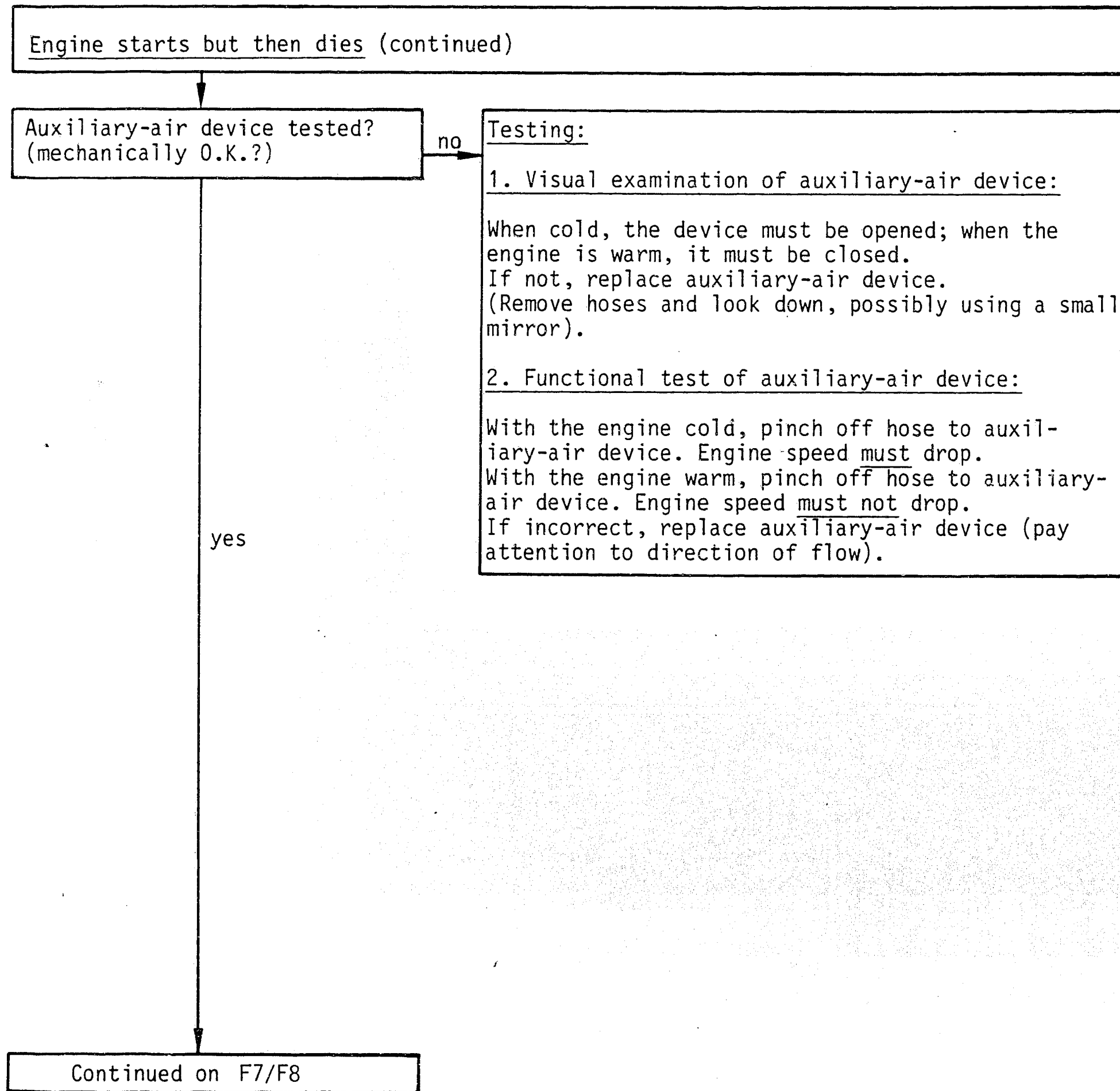
Engine starts and then dies  
Citroen CX GTI/Prestige/Pallas



**F4**

Engine starts and then dies  
Citroen CX GTI/Prestige/Pallas





Arrow = Auxiliary-air device

**F5**

Engine starts but then dies  
Citroen CX GTI/Prestige/Pallas



**F6**

Engine starts but then dies  
Citroen CX GTI/Prestige/Pallas



Engine starts but then dies (continued)

Temperature sensors tested?

no

#### Testing

Temperature sensor I measures the intake air temperature and is located in the air duct of the air-flow sensor. Measure the following values between term. 27 and term. 6 of air-flow sensor:

- |  |               |
|--|---------------|
| 1. At ambient temperature<br>(approx. + 15° C...+30° C): | 1.45...3.3 kΩ |
| 2. With engine at normal op. temp.<br>(approx +80° C):   | 280 ... 360 Ω |

Take measurements with ohmmeter directly on temperature sensor II (engine) (white plug). Measurement of resistance across Term. 13 and Term. 49 (ground):

- |   |               |
|---|---------------|
| 1. At ambient temperature<br>(approx. +15° C...+30° C): | 1.30...3.6 kΩ |
| 2. With engine at normal op. temp.<br>(approx. +80° C): | 250 ... 390 Ω |

If incorrect, check for open circuit or short circuit in the following leads using ohmmeter:

#### Temperature sensor I:

- From multiple plug term. 27 to air-flow sensor term. 27.
- From air-flow sensor term. 6 to multiple plug term. 6.

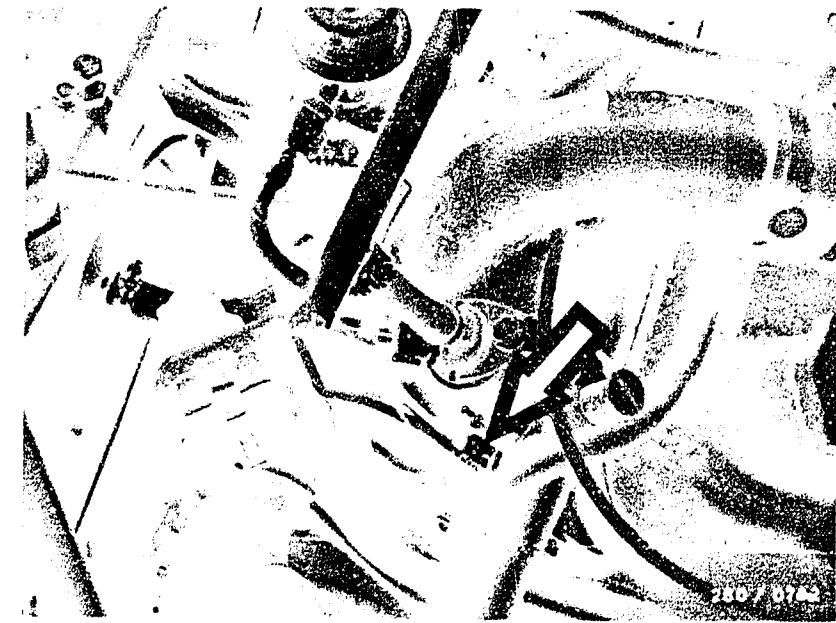
#### Temperature sensor II

- From multiple plug term. 13 to temperature sensor II term. 13.
- From temperature sensor II term. 49 to central ground (lead 49).

Test all contacts in plug connections.

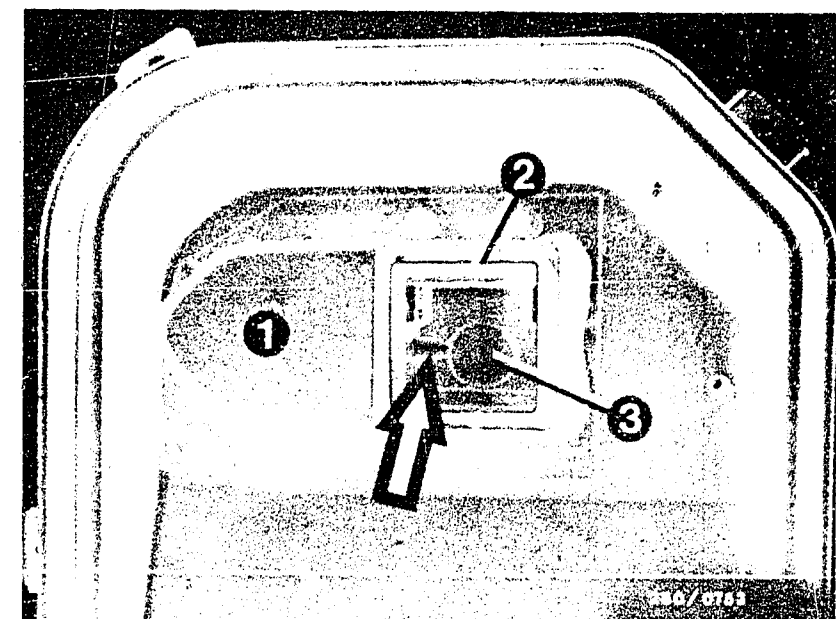
yes

Continued on F9/F10



Arrow = Temperature sensor II  
(Engine)  
(White plug)

Arrow = Temperature sensor I  
1 = Air filter cover  
2 = Air-flow sensor  
3 = Air-flow sensor flap



**F7**

Engine starts but then dies  
Citroen CX GTI/Prestige/Pallas



**F8**

Engine starts but then dies  
Citroen CX GTI/Prestige/Pallas



Engine starts but then dies (continued)

Air-flow sensor O.K.?

no

Removal: Remove 4 wing screws on the air filter. Release the rubber-metal fastening and disconnect the electrical connection. Take out the air-flow sensor together with the upper part of the air filter. Fastened using 4 screws.

Testing:

Unscrew the hose from the air-flow sensor. Open air-flow sensor flap by hand.

It must be possible to open the air-flow sensor flap with uniform ease from its fully closed position to its fully open position. When released, the flap must close completely by itself. When the air-flow sensor flap is opened it must not catch at any point. Watch for any indications of abrasion or rubbing. Clean air-flow sensor of the inside is very dirty and rub out with a lint-free cloth. If there are any signs of abrasion or rubbing, replace the air-flow sensor. Connect ohmmeter to term. 7 and term. 8 of air-flow sensor.

Test specification: 100...500  $\Omega$

When re-installing, make sure position is correct, using the rubber stoppers as a guide. Do not forget the intermediate flange!

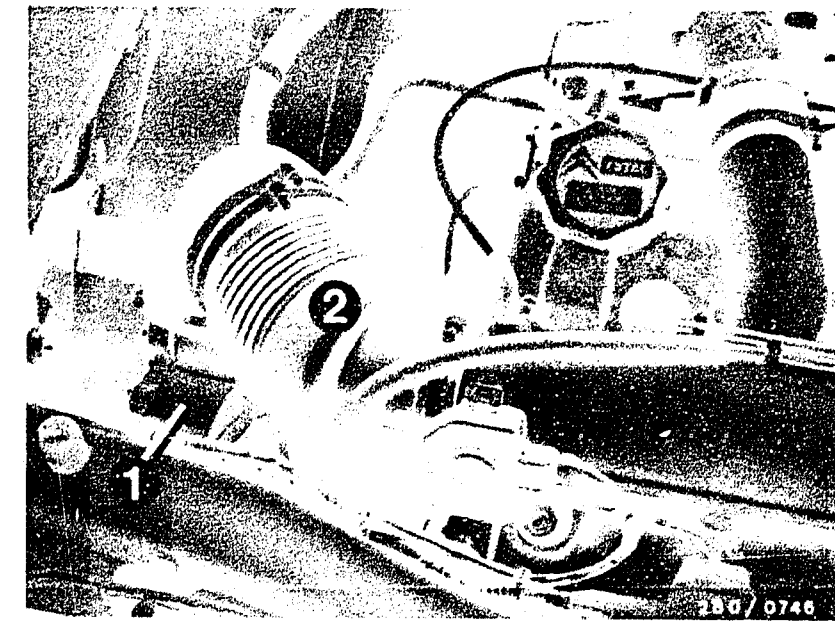
Checking the pump contact:

Remove plug from air-flow sensor. Measure resistance between term. 36 and term. 39 using ohmmeter. Deflect air-flow sensor flap. Set value approx. 0  $\Omega$ :

N.B.! Once the test has been completed, the hose must be screwed back on the air-flow sensor. Check the connection for leaks.

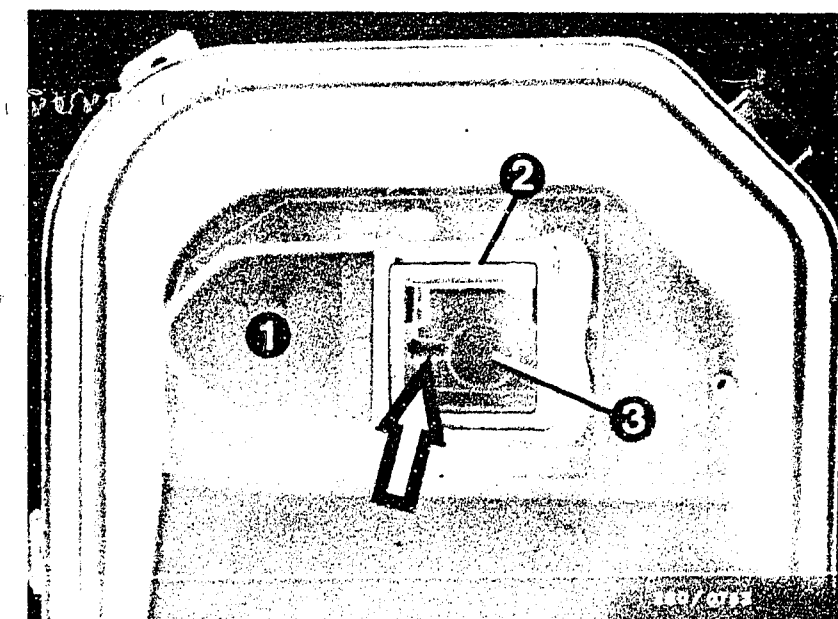
yes

Continued on F11/F12



- 1 = Air-flow sensor  
2 = Hose between air-flow sensor and intake manifold

- Arrow = Temperature sensor I  
1 = Air filter cover  
2 = Air-flow sensor  
3 = Air-flow sensor flap



**F9**

Engine starts but then dies  
Citroen CX GTI/Prestige/Pallas



**F10**

Engine starts but then dies  
Citroen CX GTI/Prestige/Pallas





Engine starts but then dies (continued)

Solenoid-operated air valve  
O.K.?

no

yes

Continued on F13/F14

Function:

a) Vehicles with automatic transmission:

After changing to a driving position, the solenoid-operated air valve opens: idle speed remains unchanged.

b) Vehicles with air conditioning

When air conditioning is switched on, solenoid-operated air valve opens, idle speed remains unchanged.

Testing:

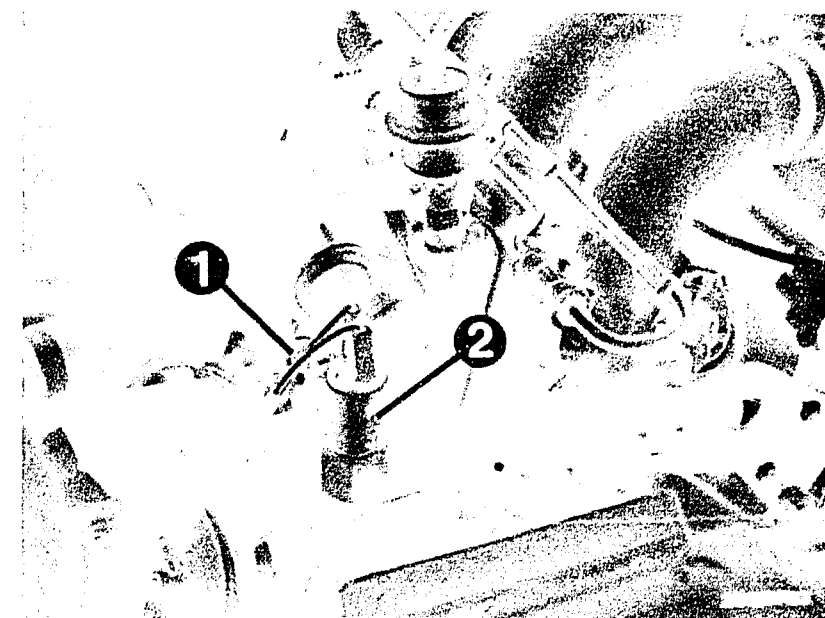
Ignition "ON". Engine at standstill. Put into drive or turn on air conditioner and measure the voltage on the connection pins of the solenoid-operated air valve. Specified value 8...15 V.

Functional test: (Engine running)

1. Solenoid-operated air valve voltage-free (disconnect plug). When defect is rectified, test leads and switches.
2. Squeeze off air hose to solenoid-operated air valve. When defect is rectified, replace faulty solenoid-operated air valve.
3. Has the air-adjusting screw been set correctly? The idle speed must not change when the solenoid-operated air valve opens (vehicle put into drive or air conditioner turned on).

Setting:

The CO and idle speed adjustment must be correct first. Adjust the air-adjusting screw so that when the vehicle is put into drive or when the air conditioner is turned on (solenoid-operated air valve opens), the idle speed remains unchanged. If not, take out and replace the solenoid-operated air valve.



Up to 8.80 model:

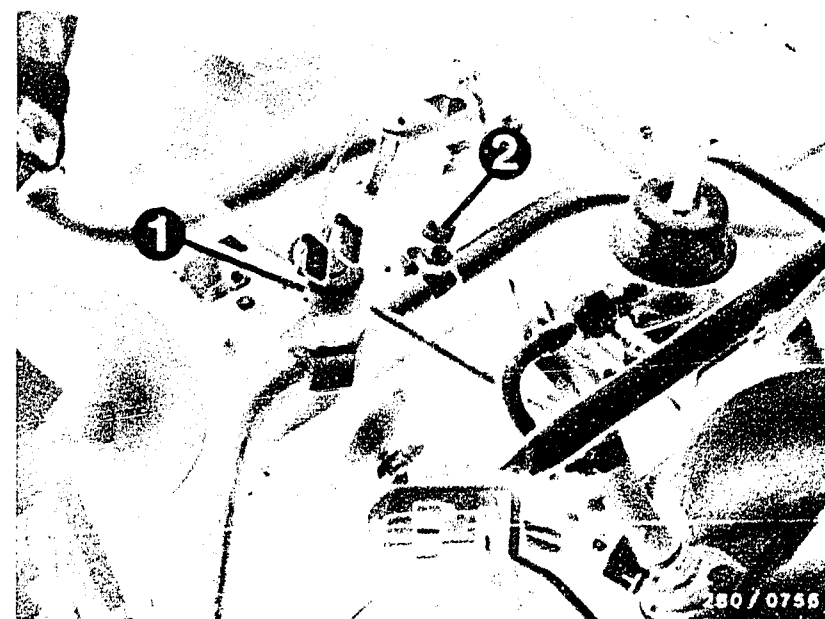
1 = Air-adjusting screw

2 = Solenoid-operated air valve

As of 9.80 model:

1 = Solenoid-operated air valve

2 = Air-adjusting screw



**F11**

Engine starts and then dies  
Citroen CX GTI/Prestige/Pallas



**F12**

Engine starts and then dies  
Citroen CX GTI/Prestige/Pallas





# Engine starts but then dies (continued)

Are all hose lines and electric leads securely attached?  
Visual examination. Is the air-intake system leak-tight?

no

Check whether hoses of air-intake system and of fuel line system are securely attached, not kinked or damaged. If necessary, replace hoses. Eliminate leaks with new seals or by re-tightening the connecting screws.  
Checking for leaks:  
Seal off exhaust tail pipe. Screw off hose from air filter to air-flow sensor on air-flow sensor and seal off air-flow sensor duct. Pull off hose after auxiliary-air device and blow air (0,3 bar) into the intake manifold with a compressed-air gun. Seal off connection port on auxiliary-air device. Open throttle valve fully while doing this. Brush or spray all joints with soapy water. Bubbling or foaming indicates a leak.  
Check electric contacts for loose connection.

yes

Testing completed for customer complaint

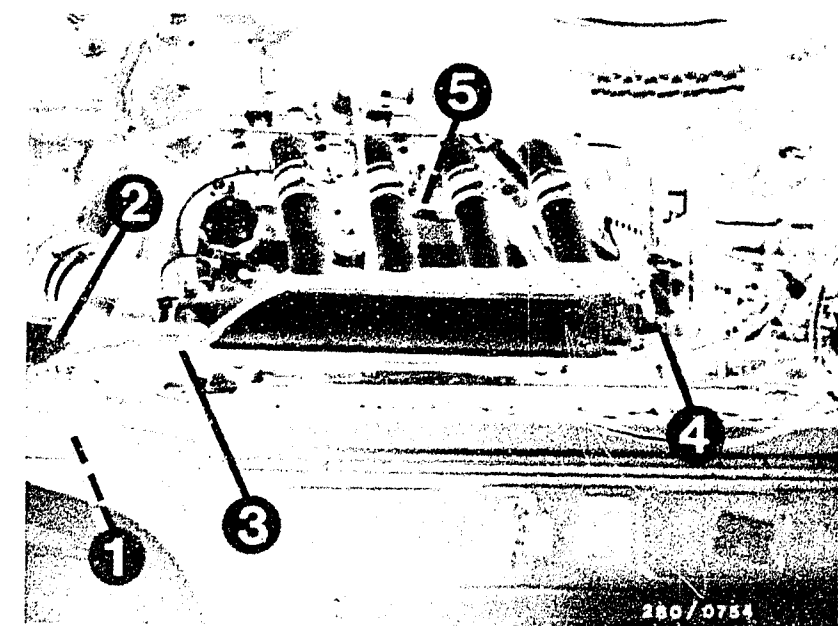
"Engine starts but then dies"

Customer complaint remedied?

no

## Further possibilities:

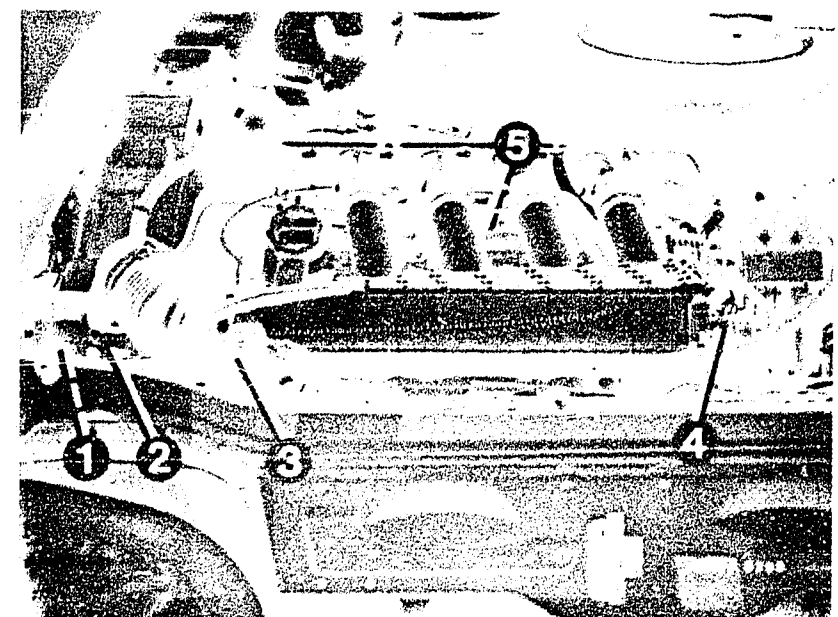
- Customer complaint incorrectly diagnosed (See Coordinates B3...B8).  
If the fault has not been detected by "Direct trouble-shooting", see "Detailed trouble-shooting" (Coordinates B3/B4).
- Engine not mechanically O.K. (Compression, valve setting, valve timing, worn camshaft).



Up to 8.80 model

- 1 = Air filter
- 2 = Air-flow sensor
- 3 = Throttle-valve switch
- 4 = Start valve (blue plug)
- 5 = Auxiliary-air device

As of 9.80 model



F13

Engine starts but then dies  
Citroen CX GTI/Prestige/Pallas



F14

Engine starts but then dies  
Citroen CX GTI/Prestige/Pallas



## UNEVEN ENGINE IDLE, ENGINE-SPEED ADJUSTMENT (IDLE) AND EXHAUST-GAS ADJUSTMENT

Trouble-shooting program according to customer complaints

How to use the following trouble-shooting program

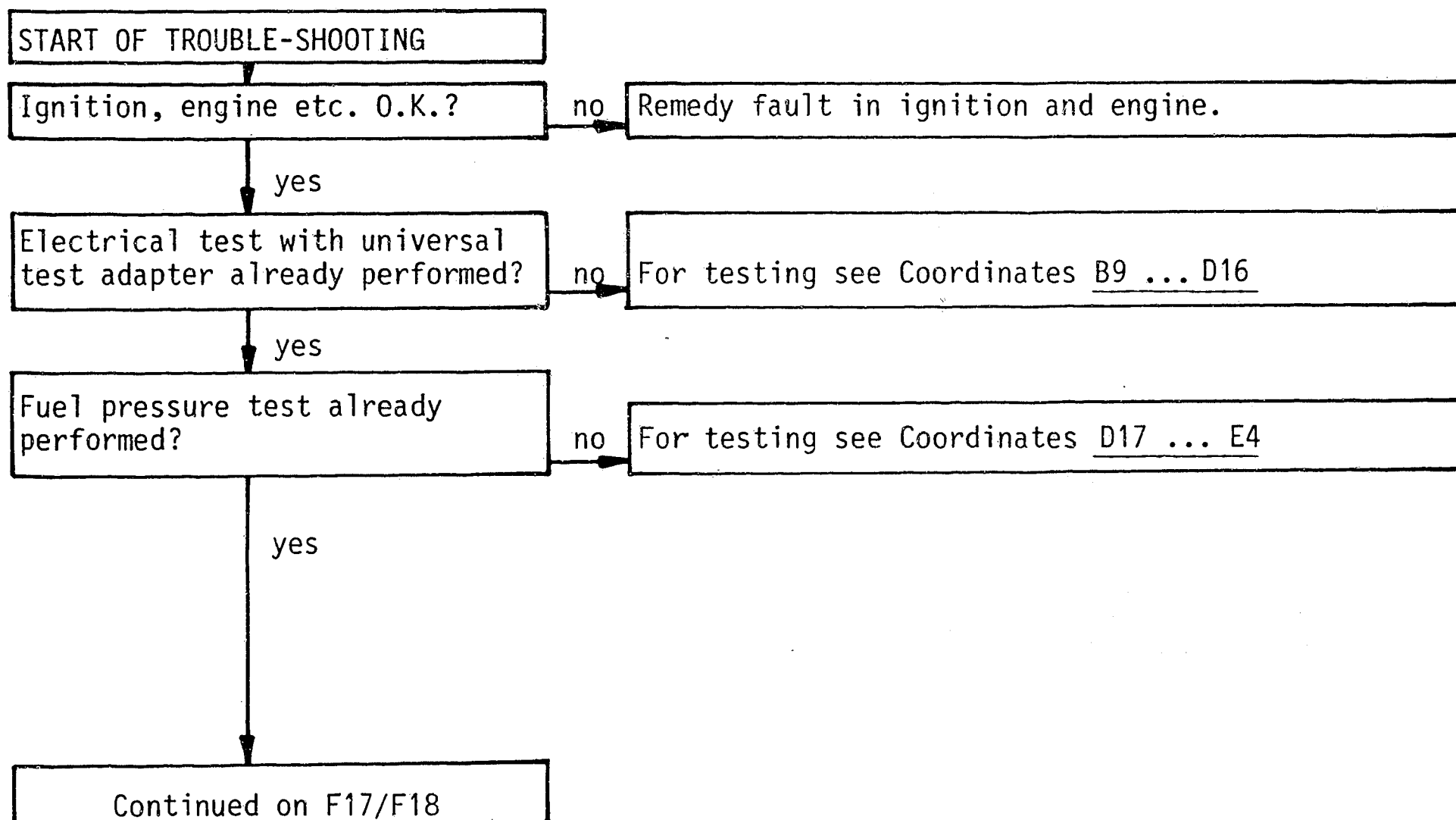
The program is divided into three rows of boxes:

- The left-hand row contains the questions on the tests.
- The middle row contains descriptions of the testing and adjustment operations on the components.
- The right-hand row contains the illustrations belonging to the text and explains the illustrations.

If the questions can be answered conclusively with "yes" without testing, proceed to the next question below.

If, on the other hand, the answer to the question is "no", and you suspect a fault, branch to the middle row of boxes and carry out the tests given there.

When you have finished testing continue trouble-shooting at the point at which you branched off.



**F15**

Uneven engine idle  
Citroen CX GTI/Prestige/Pallas



**F16**

Uneven engine idle  
Citroen CX GTI/Prestige/Pallas



Uneven engine idle, speed adjustment (idle) and exhaust-gas adjustment (continued)

Throttle valve closed?

no

Testing:

Throttle valve closed?

Check whether the throttle valve can be closed still further and whether the engine speed thereby drops.

Adjustment of the throttle valve switch (only on on Type 0 280 120 301):

Loosen fastening screws slightly. Connect ohmmeter from term. 2 and term. 18. Turn the throttle valve switch to the right until you can hear the idle contact (microswitch) click (reading 0  $\Omega$ ).

Checking the setting: Pull on the throttle cable tightly. The idle contact must click audibly.

Trouble-shooting:

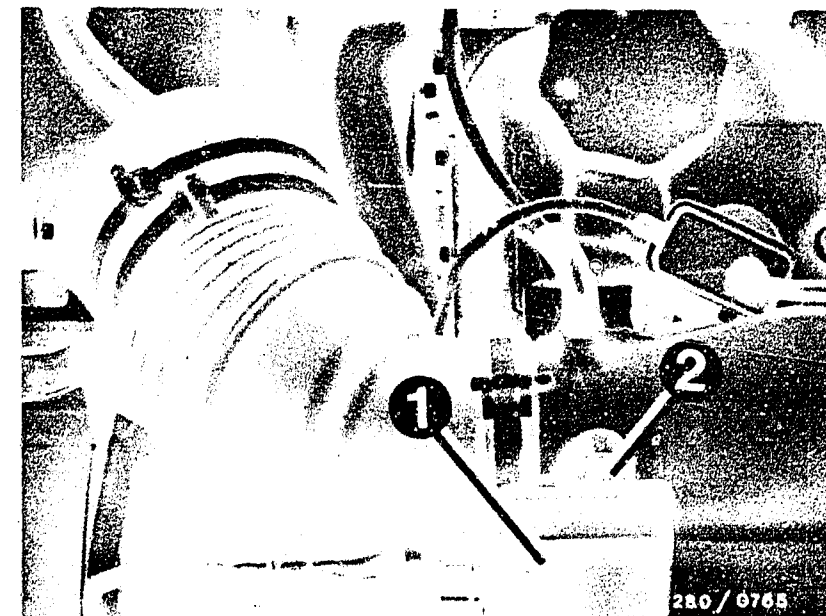
Test following leads with ohmmeter for continuity (set value approx. 0  $\Omega$ ):

- From multiple plug term. 2 to throttle-valve switch term. 2.
- From throttle-valve switch term. 18 to multiple plug term. 18.

Eliminate contact resistance in plug connections.

yes

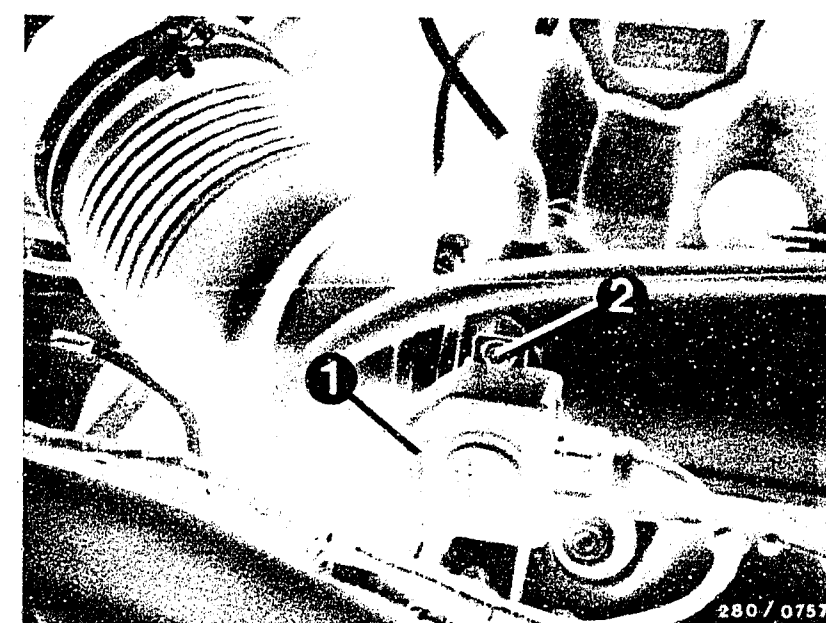
Continued on F19/F20



Up to 8.80 model

1 = Throttle valve switch  
2 = Fastening screws

As of 9.80 model



**F17**

Rough idle  
Citroen CX GTI/Prestige/Pallas



**F18**

Rough idle  
Citroen CX GTI/Prestige/Pallas



Uneven engine idle, speed adjustment (idle) and exhaust-gas adjustment (continued)

Solenoid-operated air valve  
O.K.?

no

Function:

a) Vehicles with automatic transmission:

After changing to a driving position, the solenoid-operated air valve opens: idle speed remains unchanged.

b) Vehicles with air conditioning

When air conditioning is switched on, solenoid-operated air valve opens, idle speed remains unchanged.

Testing:

Ignition "ON". Engine at standstill. Put into drive or turn on air conditioner and measure the voltage on the connection pins of the solenoid-operated air valve. Specified value 8...15 V.

Functional test: (Engine running)

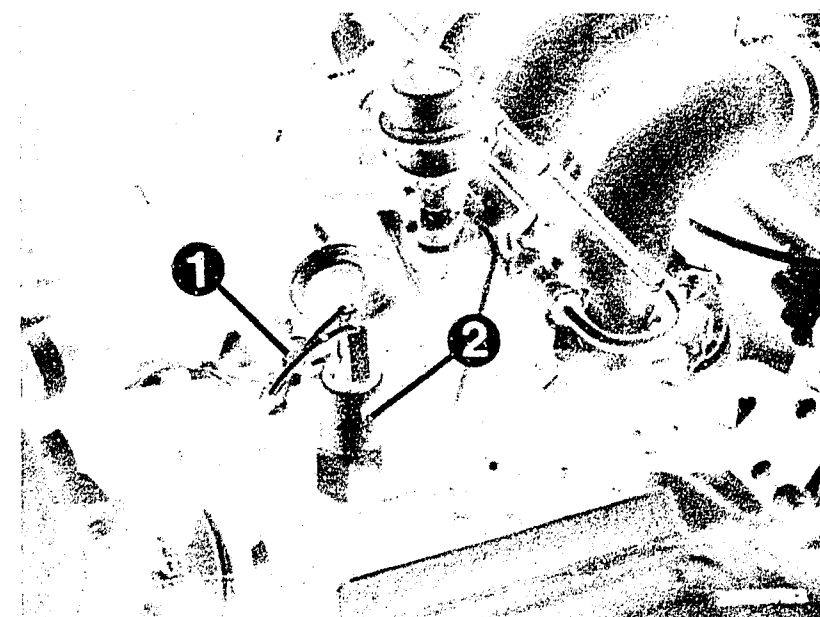
1. Solenoid-operated air valve voltage-free (disconnect plug). When defect is rectified, test leads and switches.
2. Squeeze off air hose to solenoid-operated air valve. When defect is rectified, replace faulty solenoid-operated air valve.
3. Has the air-adjusting screw been set correctly? The idle speed must not change when the solenoid-operated air valve opens (vehicle put into drive or air conditioner turned on).

Setting:

The CO and idle speed adjustment must be correct first. Adjust the air-adjusting screw so that when the vehicle is put into drive or when the air conditioner is turned on (solenoid-operated air valve opens), the idle speed remains unchanged. If not, take out and replace the solenoid-operated air valve.

yes

Continued on F21/F22



Up to 8.80 model:

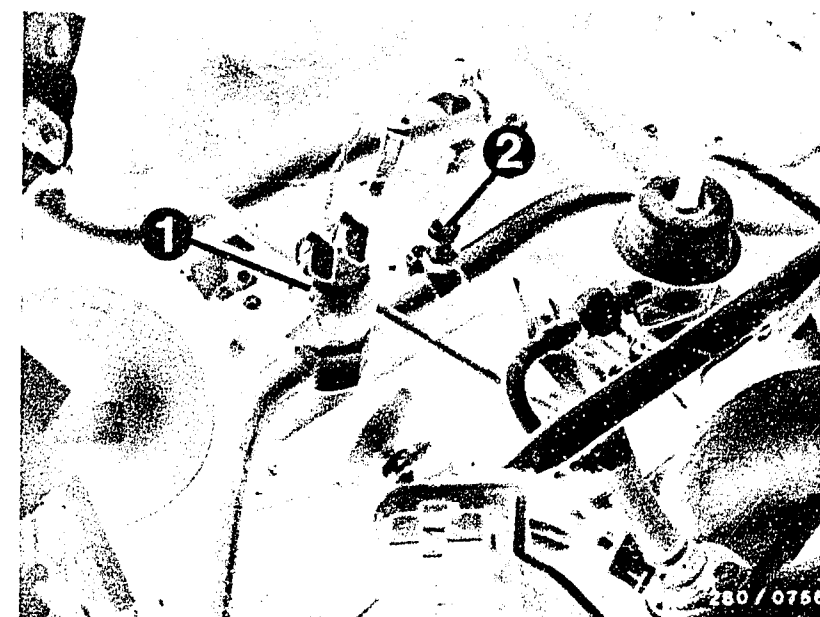
1 = Air-adjusting screw

2 = Solenoid-operated air valve

As of 9.80 model:

1 = Solenoid-operated air valve

2 = Air-adjusting screw



**F19**

Rough idle

Citroen CX GTI/Prestige/Pallas



**F20**

Rough idle

Citroen CX GTI/Prestige/Pallas



Uneven engine idle, speed adjustment (idle) and exhaust-gas adjustment (continued)

CO and idle speed correctly adjusted?

no

CO and idle adjustment

Exhaust-gas test with CO analyzer with engine at normal operating temperature and at idle speed

Idle speed

Manual transmission:  $850 \dots 900 \text{ min}^{-1}$

Automatic transmission  
(selector lever in position D and parking brake on)  $800 \dots 850 \text{ min}^{-1}$

CO adjustment:  $0.8 \dots 1.5 \text{ vol. \% CO}$

As of FD 248: CO adjusting screw with socket hex AF5.

If CO concentration too high, turn bypass screw (CO adjusting screw) in air-flow sensor half a turn in a counterclockwise direction. Check engine speed and CO concentration again. Carry out adjustments in several steps.

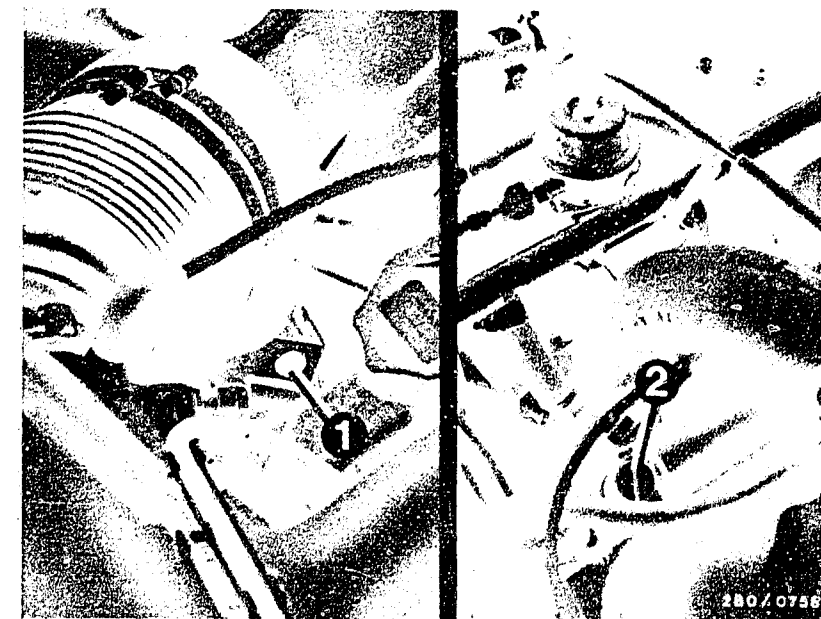
After adjusting, use new plugs.

yes

Can engine speed not be adjusted?

yes

Continued on F23/F24



1=CO adjusting screw  
2=Idle-speed-adjusting screw

**F21**

Rough idle  
Citroen CX GTI/Prestige/Pallas



**F22**

Rough idle  
Citroen CX GTI/Prestige/Pallas



Uneven engine idle, speed adjustment (idle) and exhaust-gas adjustment (continued)

Is the thermo-time switch O.K.?

no

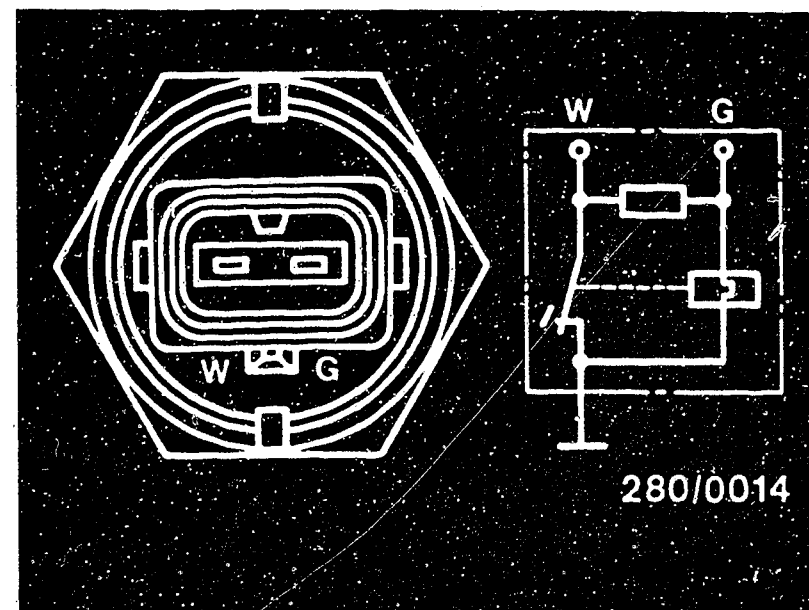
Electrical test:

Check the thermo-time switch 35°/8 sec. as follows. Disconnect the plug and measure with an ohmmeter directly on the thermo-time switch.

1. Between Term. "G" and ground at ambient temperature (below + 30°C): 25...40 Ω  
Eng. at op. temp. (above + 40°C): 50...80 Ω
2. Between Term. "W" and ground at ambient temperature (below + 30°C): 0 Ω  
Eng. at op. temp. (above + 40°C): 100...160 Ω
3. Between Term. "G" and "W" at ambient temperature (below + 30°C): 25...40 Ω  
Eng. at op. temp. (above + 40°C): 50...80 Ω

yes

Continued on G1/G2



**F23**

Rough idle

Citroen CX GTI/Prestige/Pallas



**F24**

Rough idle

Citroen CX GTI/Prestige/Pallas



Uneven engine idle, speed adjustment (idle) and exhaust-gas adjustment (continued)

Start valve O.K.?  
(Test for leaks)

no

Testing the start valve for leaks:

1. When installed

Pinch off the fuel delivery line to the start valve. If engine then runs smoothly, replace start valve.

2. When removed:

Remove start valve (Caution: Fire hazard!). Fuel line and electric lead remain connected (place collector vessel under start valve). Build up fuel pressure (unscrew hose between air filter and air-flow sensor. Ignition "on" and deflect air-flow sensor flap).

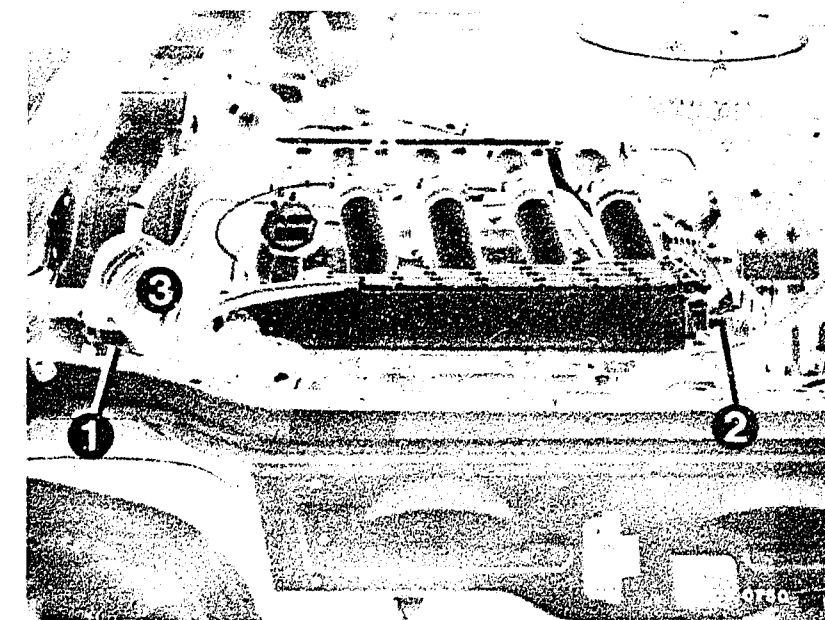
Test specification: Within 1 minute max.

1 drop may form at the mouth of the valve.

Caution! After testing is completed, refit hose between air filter and air-flow sensor. Make sure there are no leaks.

yes

Continued on G3/G4



1 = Air-flow sensor

2 = Start valve

3 = Air hose

**G1**

Rough idle

Citroen CX GTI/Prestige/Pallas



**G2**

Rough idle

Citroen CX GTI/Prestige/Pallas





Uneven engine idle, speed adjustment (idle) and exhaust-gas adjustment (continued)

Auxiliary-air device tested?  
(mechanically O.K.?)

no

Testing:

1. Visual examination of auxiliary-air device:

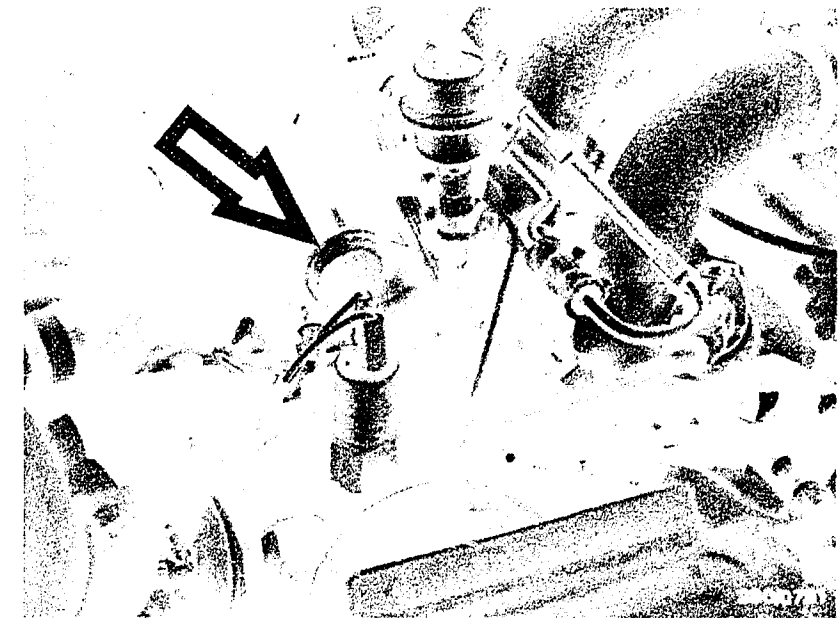
When cold, the device must be opened; when the engine is warm, it must be closed.  
If not, replace auxiliary-air device.  
(Remove hoses and look down, possibly using a small mirror).

2. Functional test of auxiliary-air device:

With the engine cold, pinch off hose to auxiliary-air device. Engine speed must drop.  
With the engine warm, pinch off hose to auxiliary-air device. Engine speed must not drop.  
If incorrect, replace auxiliary-air device (pay attention to direction of flow).

yes

Continued on G5/G6



Arrow = Auxiliary-air device

**G3**

Rough idle

Citroen CX GTI/Prestige/Pallas



**G4**

Rough idle

Citroen CX GTI/Prestige/Pallas



Uneven engine idle, speed adjustment (idle) and exhaust-gas adjustment  
(continued)

Solenoid-operated injection  
valve O.K.?

no

### 1. Mechanical test

Remove and replace injection valve plugs individually in succession from injection valves with engine running. Engine speed must fall with good injection valves.

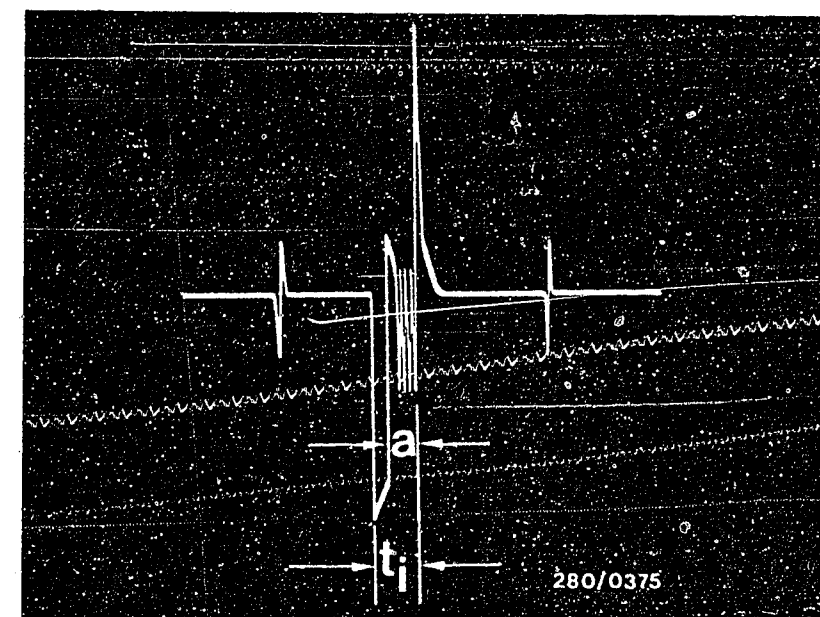
Check connecting leads from relay set Term. 88b, via series resistors Term. 43 and the solenoid-operated injection valves to the control unit Term. 14, 15, 32, and 33 for continuity. If need be, take out and replace the leads, series resistors, or solenoid-operated injection valves.

### 2. Functional test

Connect test lead as follows: The two-pole plug connections for test lead are switched between one solenoid-operated injection valve and its connection lead. Only one connection terminal of the remaining two connection terminals of the test lead must be connected to the special input of the motortester. Insulate free connection terminal (danger of short-circuit!). The picture adjacent is visible on oscilloscope when connection is correct. With the aid of test lead, the injection pulses in the solenoid-operated injection valves can be tested with engine running with an ignition oscilloscope. If the adjacent picture is not achieved, or deviations (interference, misfiring etc.) are visible, the other solenoid-operated injection valves should also be examined. With interference → test wiring. With misfires → correct loose contacts in leads or in plug connections.

Yes

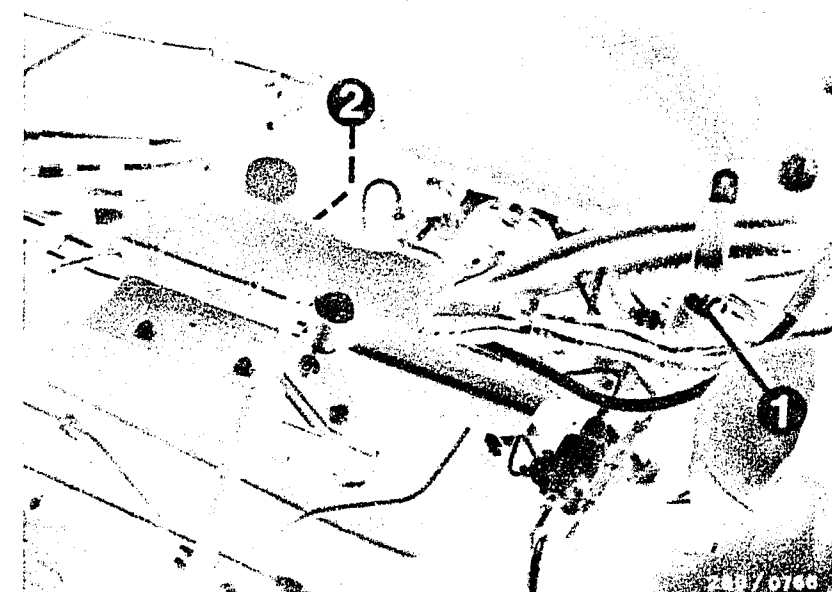
Continued on G7/G8



Injection pulse for a currentless regulated output stage (measured at solenoid-operated injection valve).

a = Pulse length  
(dependent on engine load)

1 = Series resistors  
2 = Plug connections A, B, and C



**G5**

Rough idle  
Citroen CX GTI/Prestige/Pallas



**G6**

Rough idle  
Citroen CX GTI/Prestige/Pallas



Uneven engine idle, speed adjustment (idle) and exhaust-gas adjustment (continued)

Air-flow sensor O.K.?

no

Testing:

Unscrew the air hose from the air-flow sensor.

Open air-flow sensor flap by hand.

It must be possible to open the air-flow sensor flap with uniform ease from its fully closed position to its fully open position. When released, the flap must close completely by itself. When the air-flow sensor flap is opened it must not catch at any point. Watch for any indications of abrasion or rubbing. Clean air-flow sensor if the inside is very dirty and rub out with a lint-free cloth. If there are any signs of abrasion or rubbing, replace the air-flow sensor.

Connect ohmmeter to term. 7 and term. 8 of air-flow sensor.

Measure resistance.

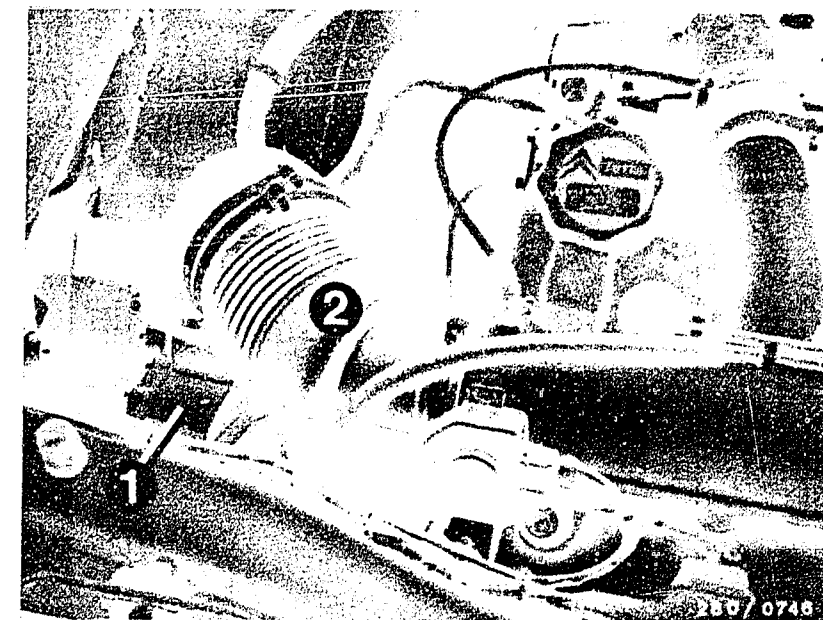
Deflect air-flow sensor flap.

Test specification: 100 ... 500  $\Omega$

N.B.! Once the test has been completed, the hose must be screwed back on the air-flow sensor. Check the connection for leaks.

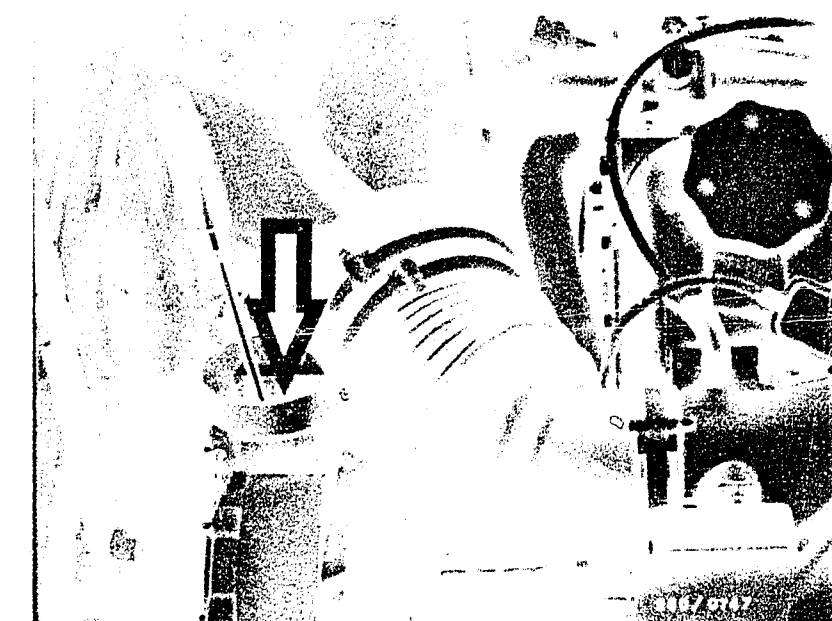
yes

Continued on G9/G10



1 = Air-flow sensor  
2 = Air hose between air-flow sensor and intake manifold

Arrow = Pushing open the air-flow sensor flap



**G7**

Rough idle

Citroen CX GTI/Prestige/Pallas



**G8**

Rough idle

Citroen CX GTI/Prestige/Pallas



Uneven engine idle, speed adjustment (idle) and exhaust-gas adjustment (continued)

Are all hose lines and electric leads securely attached?  
Visual examination. Is the air-intake system leak-tight?

no

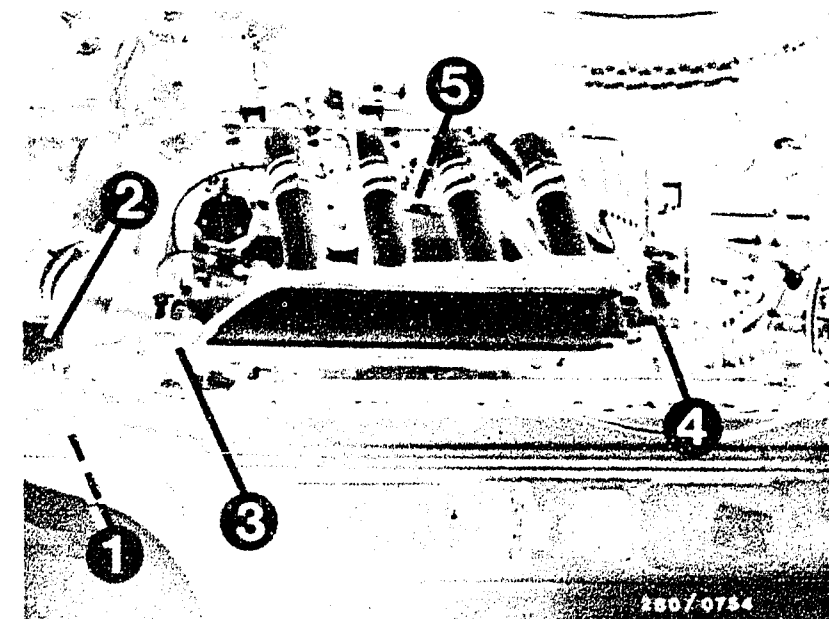
Check whether hoses of air-intake system and of fuel line system are securely attached, not kinked or damaged. If necessary, replace hoses. Eliminate leaks with new seals or by re-tightening the connecting screws.

Checking for leaks:

Seal off exhaust tail pipe. Screw off hose from air filter to air-flow sensor on air-flow sensor and seal off air-flow sensor duct. Pull off hose after auxiliary-air device and blow air (0,3 bar) into the intake manifold with a compressed-air gun. Seal off connection port on auxiliary-air device. Open throttle valve fully while doing this. Brush or spray all joints with soapy water. Bubbling or foaming indicates a leak. Check electric contacts for loose connection.

yes

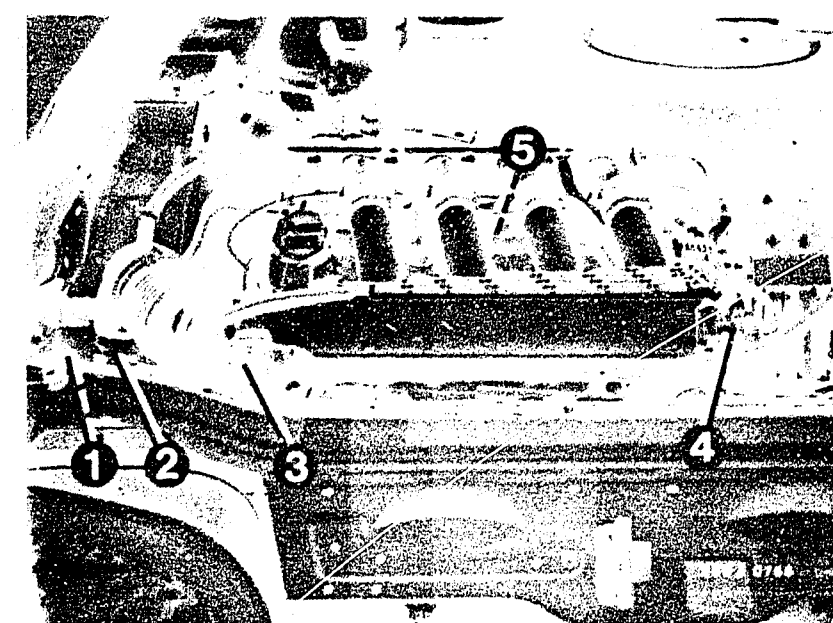
Continued on G11/G12



Up to 8.80 model

- 1 = Air filter
- 2 = Air-flow sensor
- 3 = Throttle-valve switch
- 4 = Start valve (blue plug)
- 5 = Auxiliary-air device

As of 9.80 model



**G9**

Rough idle  
Citroen CX GTI/Prestige/Pallas



**G10**

Rough idle  
Citroen CX GTI/Prestige/Pallas



Uneven engine idle, speed adjustment (idle) and exhaust-gas adjustment (continued)

CO and idle speed correctly adjusted?

no

CO and idle adjustment

Exhaust-gas test with CO analyzer with engine at normal operating temperature and at idle speed

Idle speed

Manual transmission: 850...900 min<sup>-1</sup>

Automatic transmission  
(selector lever in position D and parking brake on) 800...850 min<sup>-1</sup>

CO adjustment: 0.8...1.5 vol.% CO

As of FD 248: CO adjusting screw with socket hex AF5.

If CO concentration too high, turn bypass screw (CO adjusting screw) in air-flow sensor half a turn in a counterclockwise direction. Check engine speed and CO concentration again. Carry out adjustments in several steps.  
After adjusting, use new plugs.

yes

Testing completed for customer complaint

"Uneven engine idle, engine-speed adjustment (idle) and exhaust-gas adjustment".

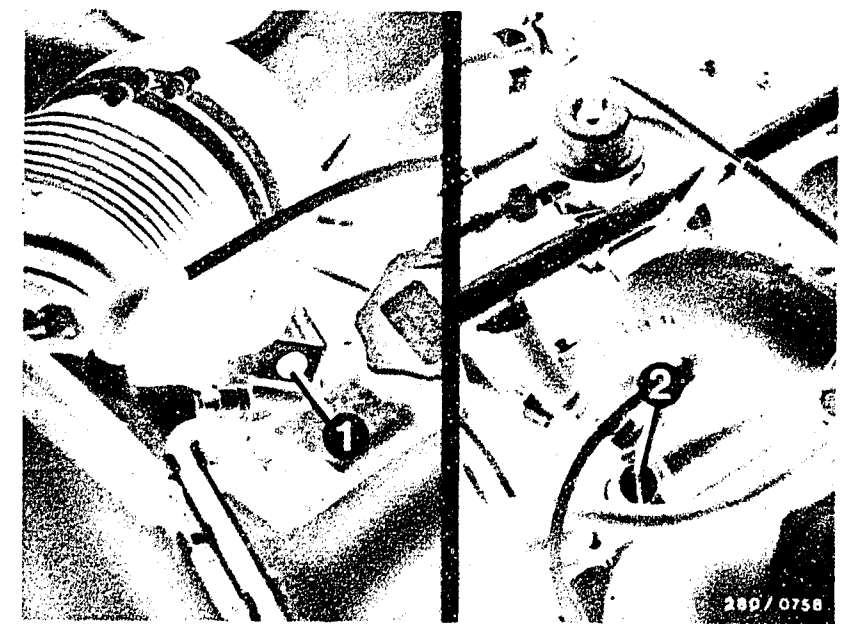
Customer complaint remedied?

no

Further possibilities:

Customer complaint incorrectly diagnosed (see Coordinates B3...B8). If the fault has not been detected by "Direct trouble-shooting", see "Detailed trouble-shooting" (Coordinates B3/B4).

Engine not mechanically O.K.  
(Compression, valve setting, valve timing, worn camshaft).



1=CO adjusting screw  
2=Idle-speed-adjusting screw

**G11**

Rough idle

Citroen CX GTI/Prestige/Pallas



**G12**

Rough idle

Citroen CX GTI/Prestige/Pallas



## POOR THROTTLE TAKE-UP

Trouble-shooting program according to customer complaints

How to use the following trouble-shooting program

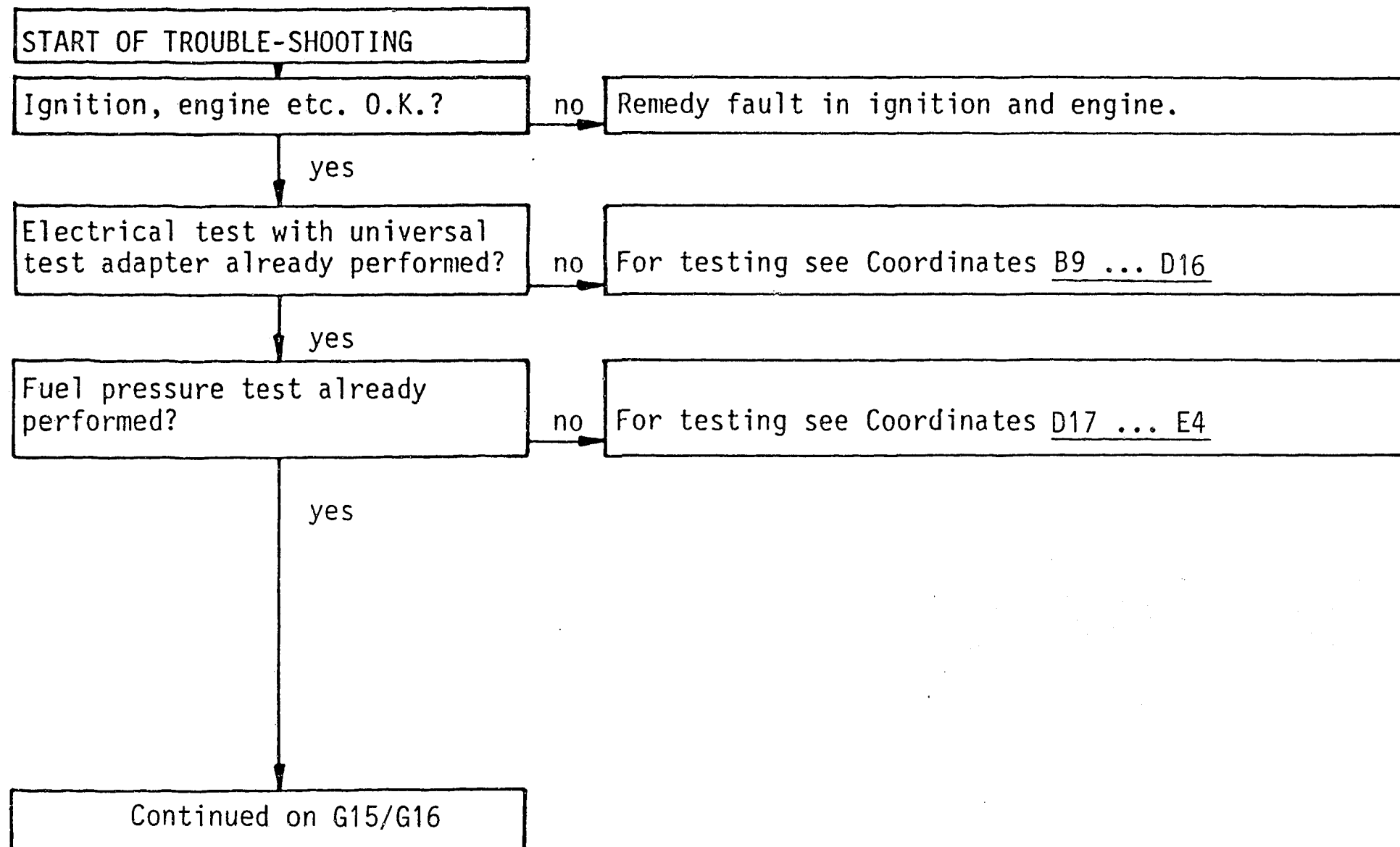
The program is divided into three rows of boxes:

- The left-hand row contains the questions on the tests.
- The middle row contains descriptions of the testing and adjustment operations on the components.
- The right-hand row contains the illustrations belonging to the text and explains the illustrations.

If the questions can be answered conclusively with "yes" without testing, proceed to the next question below.

If, on the other hand, the answer to the question is "no", and you suspect a fault, branch to the middle row of boxes and carry out the tests given there.

When you have finished testing continue trouble-shooting at the point at which you branched off.



**G13**

Poor throttle take-up  
Citroen CX GTI/Prestige/Pallas



**G14**

Poor throttle take-up  
Citroen CX GTI/Prestige/Pallas



## Poor throttle take-up (continued)

Throttle valve closed?

no

### Testing:

Throttle valve closed?

Check whether the throttle valve can be closed still further and whether the engine speed thereby drops.

Adjustment of the throttle valve switch (only on on Type 0 280 120 301):

Loosen fastening screws slightly. Connect ohmmeter from term. 2 and term. 18. Turn the throttle valve switch to the right until you can hear the idle contact (microswitch) click (reading 0  $\Omega$ ).

Checking the setting: Pull on the throttle cable tightly. The idle contact must click audibly.

### Trouble-shooting:

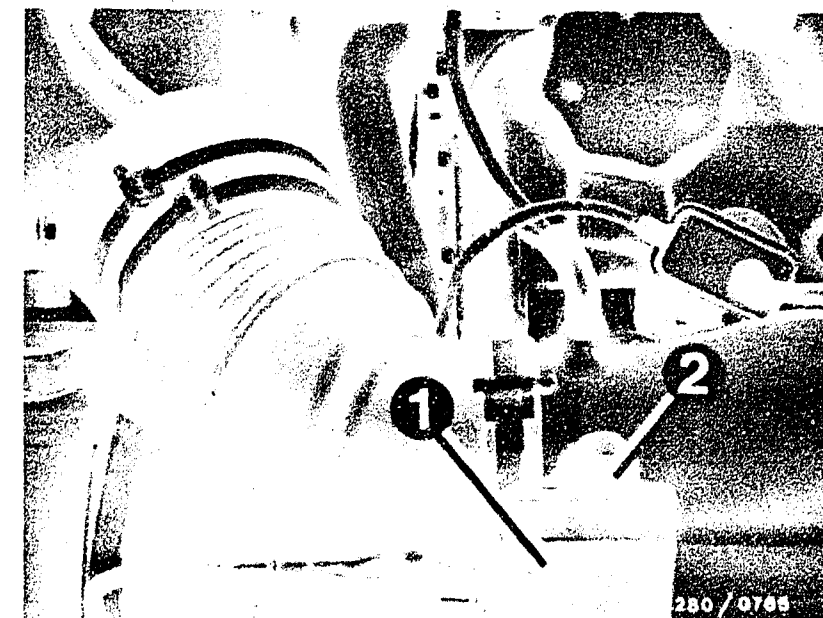
Test following leads with ohmmeter for continuity (set value approx. 0  $\Omega$ ):

- From multiple plug term. 2 to throttle-valve switch term. 2.
- From throttle-valve switch term. 18 to multiple plug term. 18.

Eliminate contact resistance in plug connections.

yes

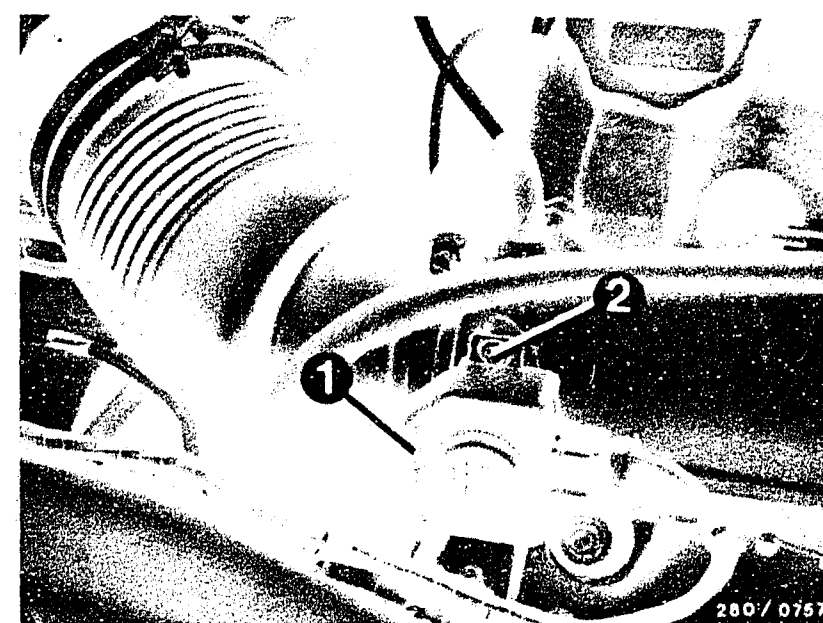
Continued on G17/G18



Up to 8.80 model

1 = Throttle valve switch  
2 = Fastening screws

As of 9.80 model



**G 15**

Poor throttle take-up  
Citroen CX GTI/Prestige/Pallas

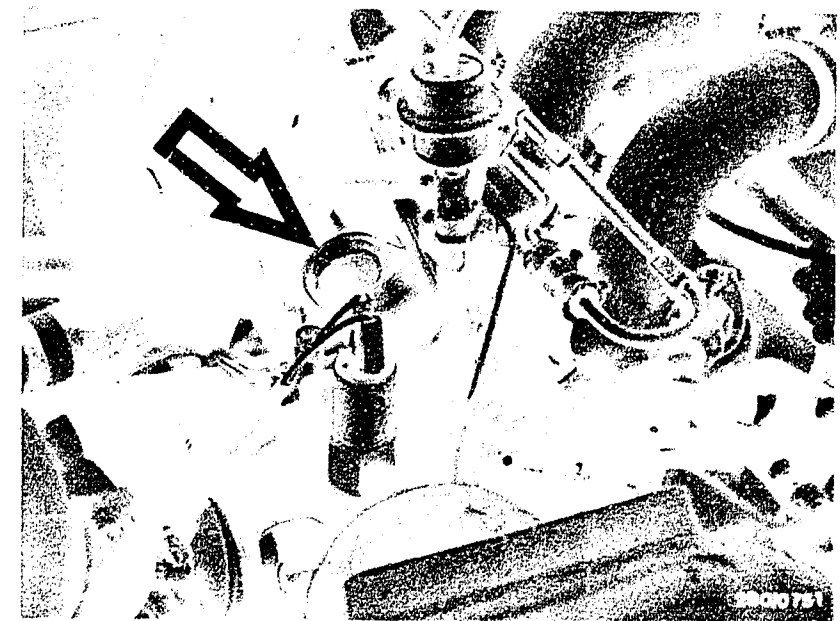
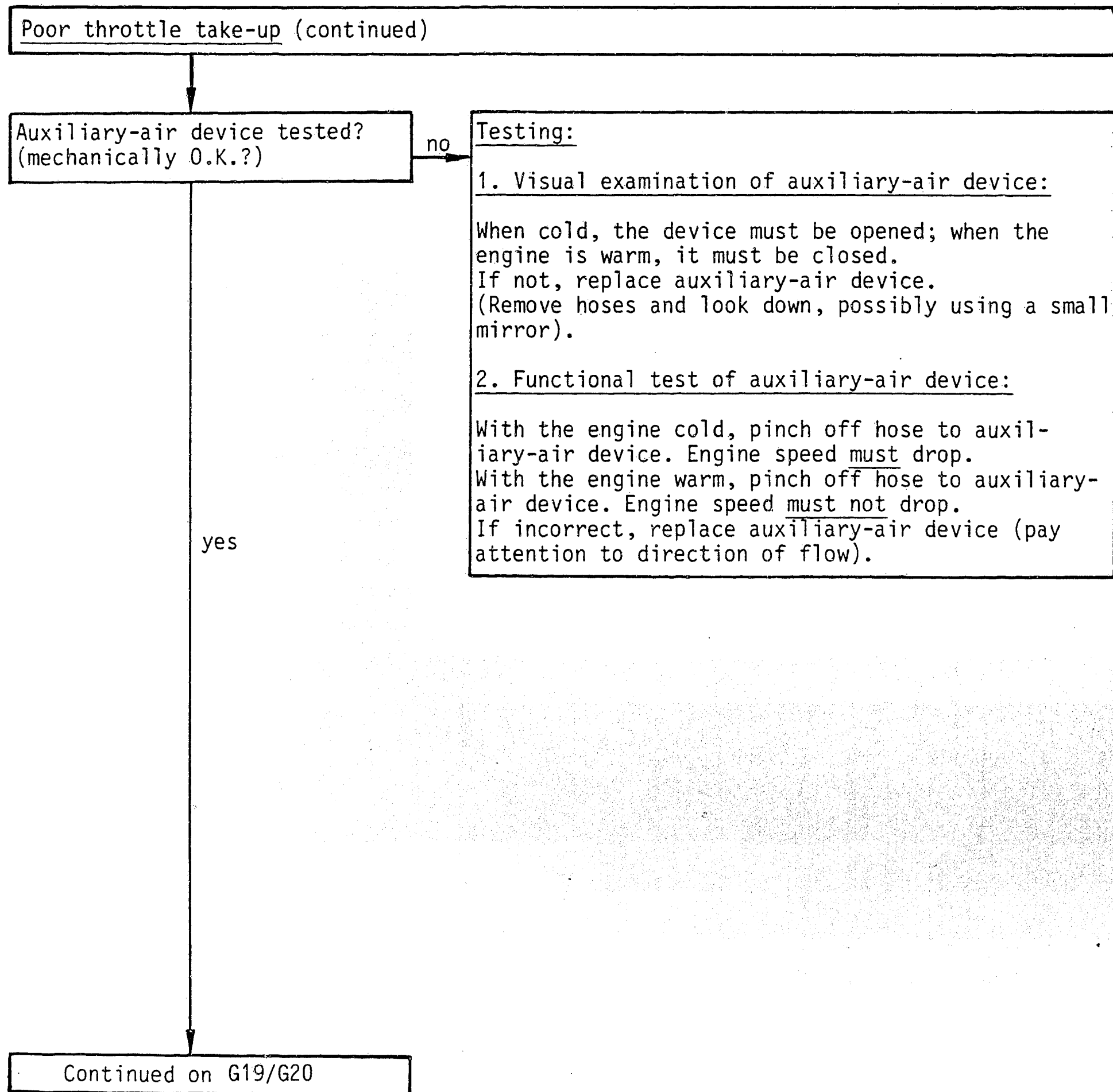


**G 16**

Poor throttle take-up  
Citroen CX GTI/Prestige/Pallas







Arrow = Auxiliary-air device

**G17**

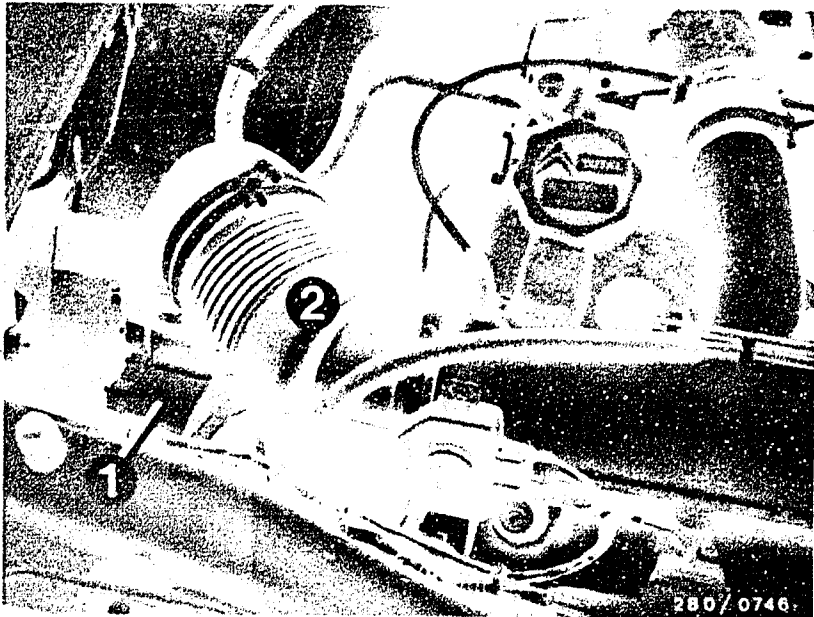
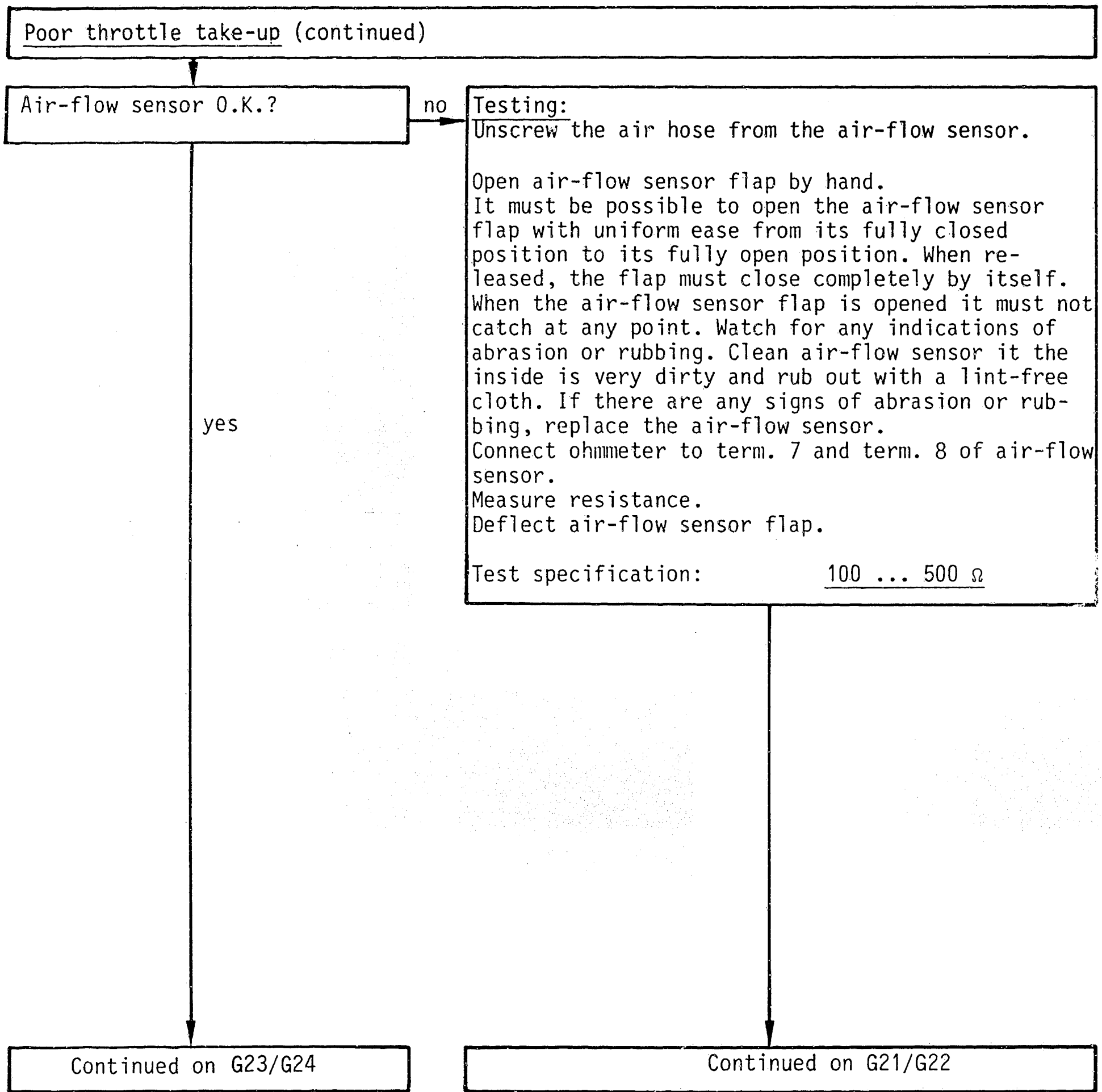
Poor throttle take-up  
Citroen CX GTI/Prestige/Pallas



**G18**

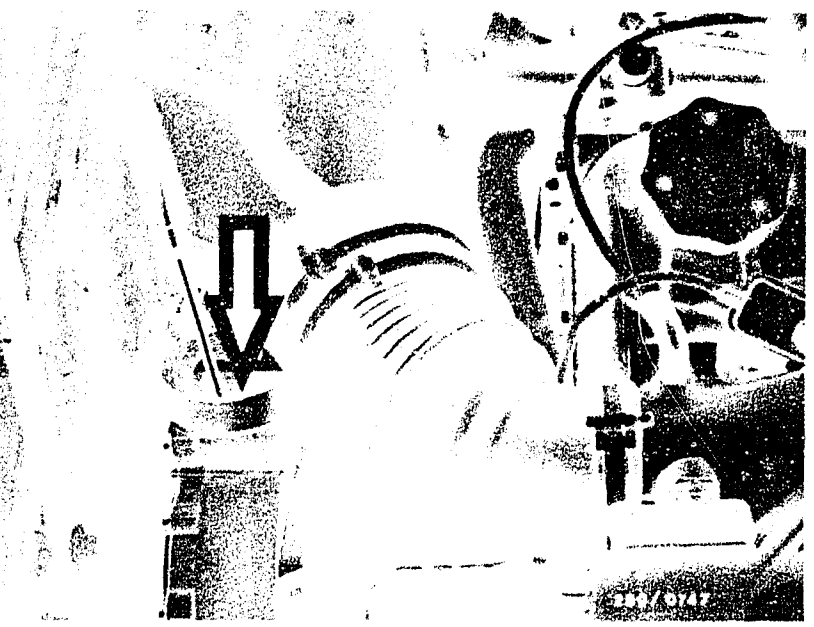
Poor throttle take-up  
Citroen CX GTI/Prestige/Pallas





1 = Air-flow sensor  
2 = Air hose between air-flow sensor and intake manifold

Pushing open the air-flow sensor flap



# Poor throttle take-up (continued)

## Potentiometer test (noise test):

Remove the air-flow sensor. Leave the connection plug plugged in. Put the motortester to "special input" and connect with the special cable to the air-flow sensor Term. 7 (red clip) and Term. 6 (black clip).

## Manufacture adapter lead:

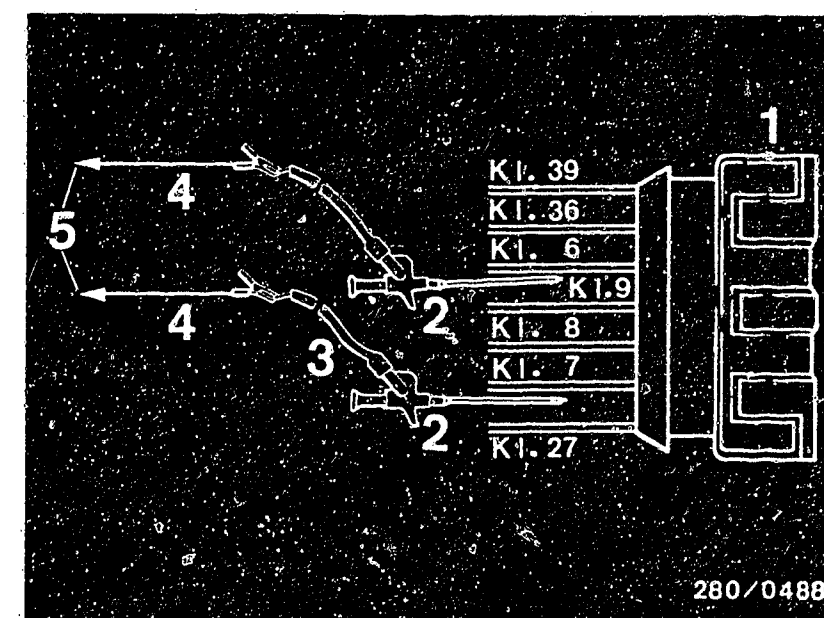
User fabrication: Two leads of approx. 1 m in length and approx. 1.5 mm<sup>2</sup> diameter. 2 test prods are fastened to one end. Insulate approx. 2 cm at other end and connect terminal for special input connection lead.

## Caution!

Insulate bare connections on adapter lead. (Danger of short-circuit!) Measure carefully into connection plug of air-flow sensor. Do not bend plug springs. Adjust control lever for framing on motortester to left stop (calibrated position). Ignition "ON". Deflect flap on air-flow sensor several times by pushing. In good air-flow sensor a stroke signal must be visible without alarm on the oscilloscope. In defect air-flow sensor, a noise signal similar to adjacent picture is visible. Replace air-flow sensor. Disconnect adapter lead after test and replace rubber grommet correctly. Mount air-flow sensor. Replace all hoses and tighten (leakage).

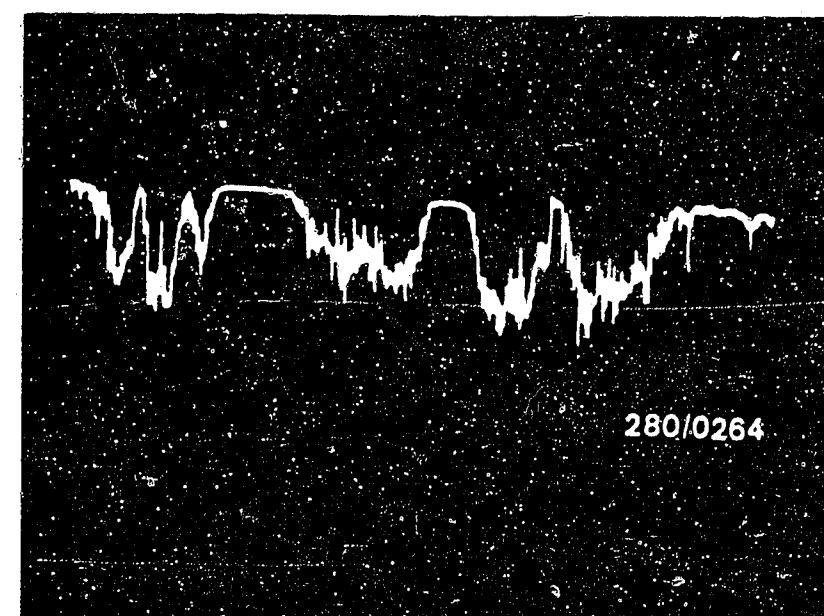
yes

Continued on G23/G24



- 1 = Air-flow sensor connection plug
- 2 = Terminal test prod
- 3 = Adapter lead (user fabrication)
- 4 = Special input connection
- 5 = Motortester special input

Noise signal in faulty air-flow sensor



**G21**

Poor throttle pick-up  
Citroen CX GTI/Prestige/Pallas



**G22**

Poor throttle pick-up  
Citroen CX GTI/Prestige/Pallas



# Poor throttle take-up (continued)

Are all hose lines and electric leads securely attached?  
Visual examination. Is the air-intake system leak-tight?

no

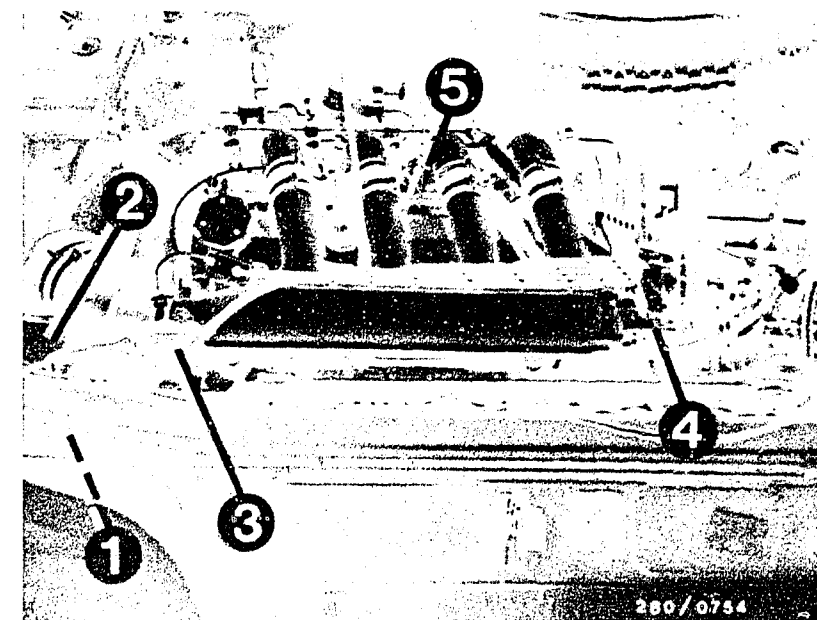
Check whether hoses of air-intake system and of fuel line system are securely attached, not kinked or damaged. If necessary, replace hoses. Eliminate leaks with new seals or by re-tightening the connecting screws.

## Checking for leaks:

Seal off exhaust tail pipe. Screw off hose from air filter to air-flow sensor on air-flow sensor and seal off air-flow sensor duct. Pull off hose after auxiliary-air device and blow air (0,3 bar) into the intake manifold with a compressed-air gun. Seal off connection port on auxiliary-air device. Open throttle valve fully while doing this. Brush or spray all joints with soapy water. Bubbling or foaming indicates a leak. Check electric contacts for loose connection.

yes

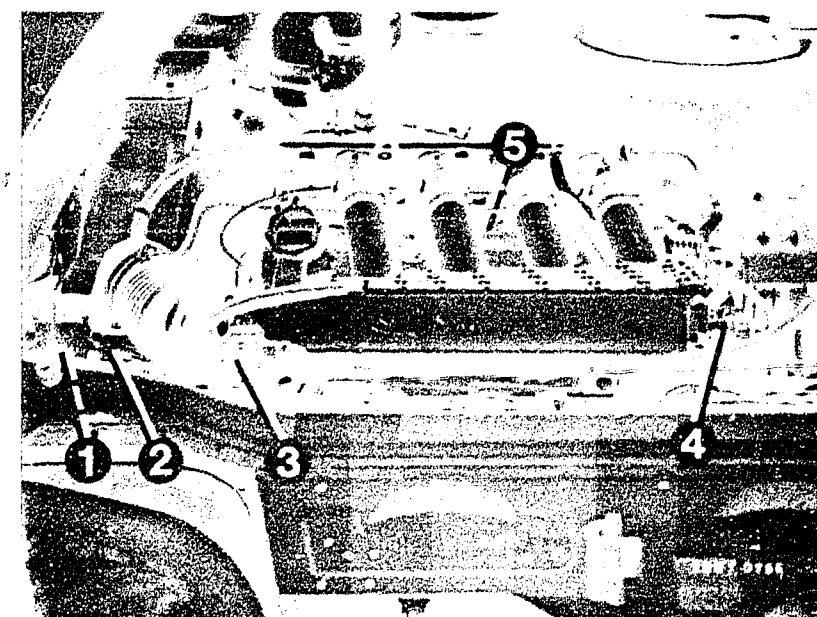
Continued on H1/H2



Up to 8.80 model

- 1 = Air filter
- 2 = Air-flow sensor
- 3 = Throttle-valve switch
- 4 = Start valve (blue plug)
- 5 = Auxiliary-air device

As of 9.80 model



**G23**

Poor throttle take-up  
Citroen CX GTI/Prestige/Pallas



**G24**

Poor throttle take-up  
Citroen CX GTI/Prestige/Pallas



# Poor throttle take-up (continued)

CO and idle speed correctly adjusted?

no

## CO and idle adjustment

Exhaust-gas test with CO analyzer with engine at normal operating temperature and at idle speed

### Idle speed

Manual transmission:  $850 \dots 900 \text{ min}^{-1}$

Automatic transmission  
(selector lever in position D and parking brake on)  $800 \dots 850 \text{ min}^{-1}$

CO adjustment:  $0.8 \dots 1.5 \text{ vol.}\% \text{ CO}$

As of FD 248: CO adjusting screw with socket hex AF5.

If CO concentration too high, turn bypass screw (CO adjusting screw) in air-flow sensor half a turn in a counterclockwise direction. Check engine speed and CO concentration again. Carry out adjustments in several steps. After adjusting, use new plugs.

yes

Can engine speed not be adjusted?

yes

Testing completed for customer complaint

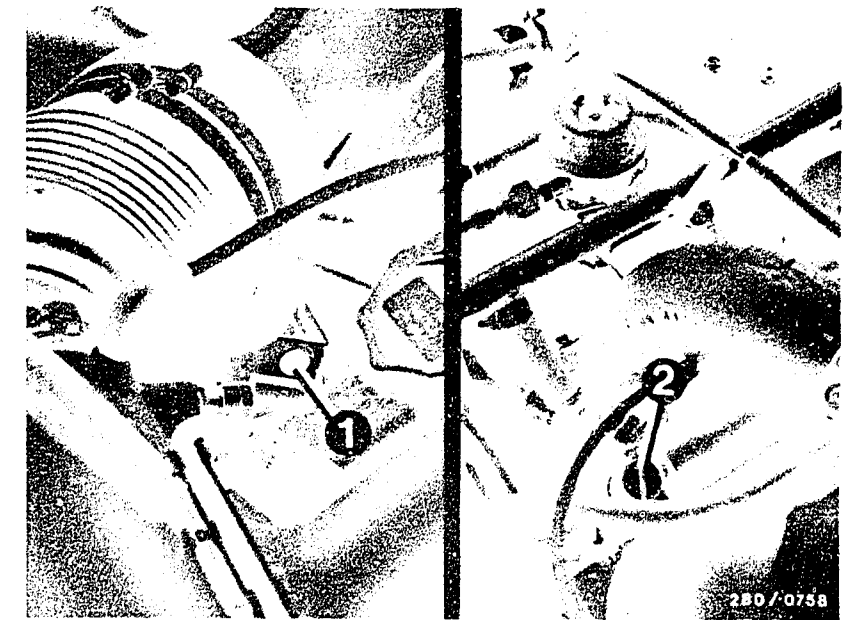
"Poor throttle take-up"

Customer complaint remedied?

no

## Further possibilities:

- Customer complaint incorrectly diagnosed (see Coordinates B3...B8). If the fault has not been detected by "direct trouble-shooting", see "detailed trouble-shooting" (Coordinates B3/B4).
- Engine not mechanically O.K. (compression, valve setting, valve timing, worn camshaft).



1=CO adjusting screw  
2=Idle-speed-adjusting screw

H1

Poor throttle take-up  
Citroen CX GTI/Prestige/Pallas



H2

Poor throttle take-up  
Citroen CX GTI/Prestige/Pallas



## ENGINE MISSING UNDER ALL OPERATING CONDITIONS

Trouble-shooting program according to customer complaints

How to use the following trouble-shooting program

The program is divided into three rows of boxes:

- The left-hand row contains the questions on the tests.
- The middle row contains descriptions of the testing and adjustment operations on the components.
- The right-hand row contains the illustrations belonging to the text and explains the illustrations.

If the questions can be answered conclusively with "yes" without testing, proceed to the next question below.

If, on the other hand, the answer to the question is "no", and you suspect a fault, branch to the middle row of boxes and carry out the tests given there.

When you have finished testing continue trouble-shooting at the point at which you branched off.

START OF TROUBLE-SHOOTING

Ignition, engine etc. O.K.?

no

Remedy fault in ignition and engine.

yes

Electrical test with universal  
test adapter already performed?

no

For testing see Coordinates B9 ... D16

yes

Fuel pressure test already  
performed?

no

For testing see Coordinates D17 ... E4

yes

Continued on H5/H6

**H3**

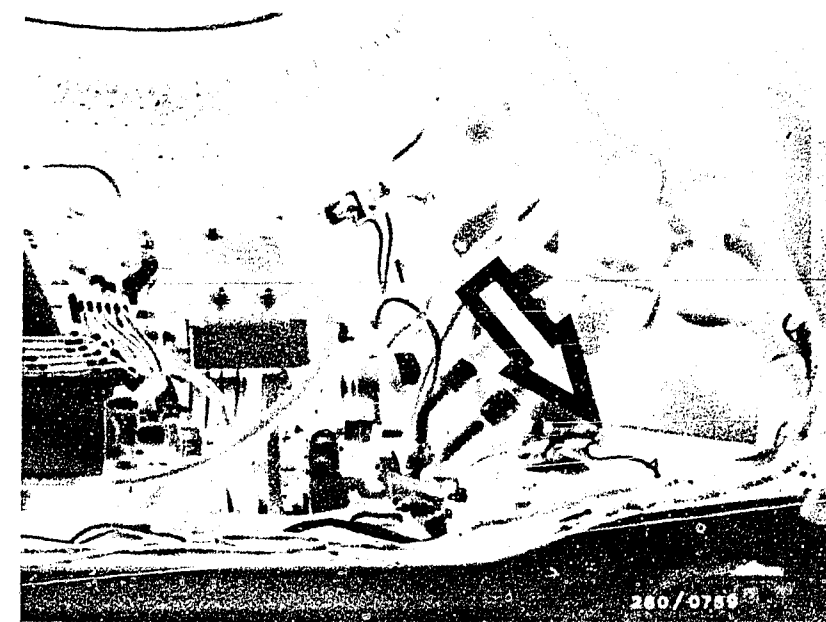
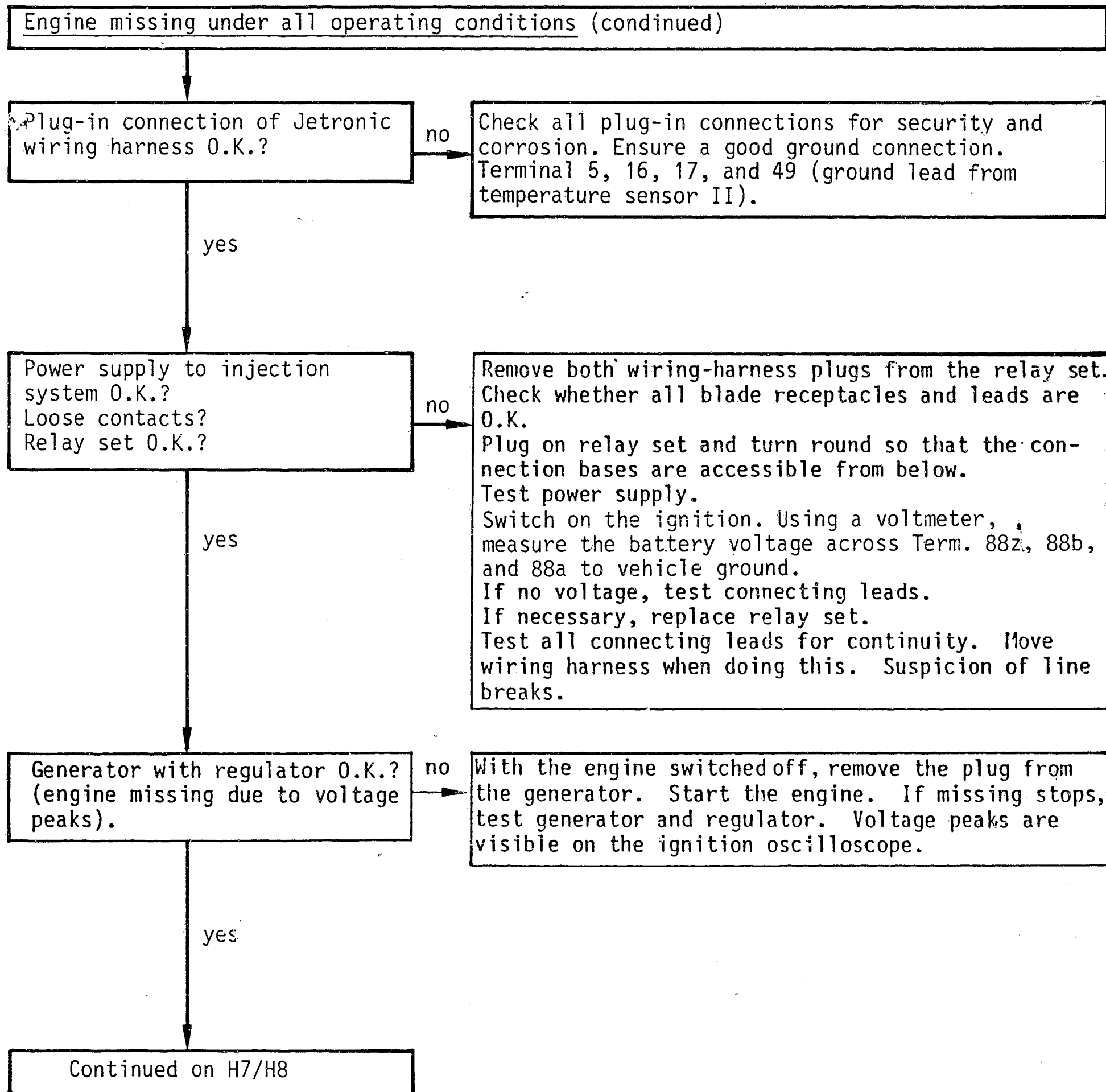
Eng. missing under all driving conditions  
Citroen CX GTI/Prestige/Pallas



**H4**

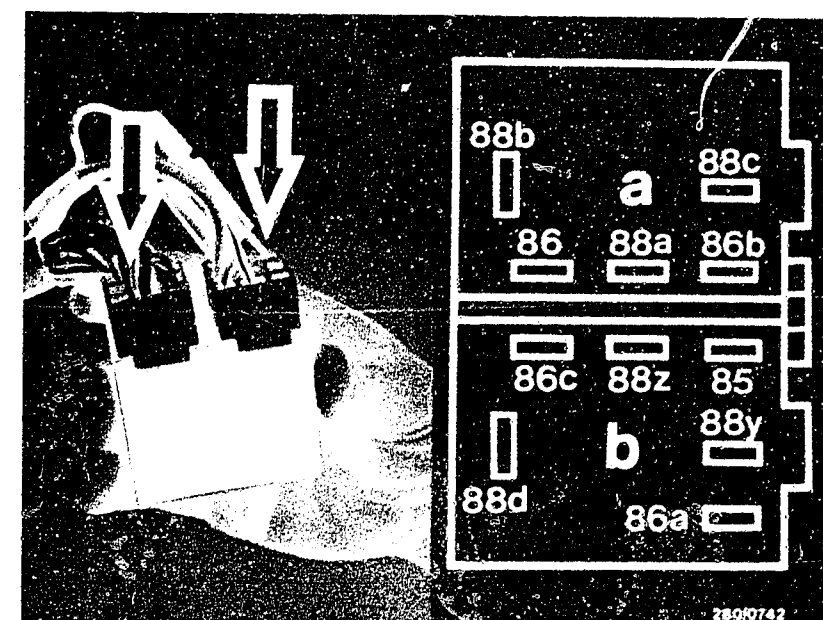
Eng. missing under all driving conditions  
Citroen CX GTI/Prestige/Pallas





Arrow = Central ground

Measure voltage on back of plug.  
a = Jetronic wiring harness  
b = Vehicle wiring harness



**H5**

Eng. missing under all driving conditions  
Citroen CX GTI/Prestige/Pallas



**H6**

Eng. missing under all driving conditions  
Citroen CX GTI/Prestige/Pallas





Engine missing under all operating conditions (continued)

Solenoid-operated injection valve tested for function?

no

Connect test lead as follows:  
The two-pole plug connections for test lead are switched between one solenoid-operated injection valve and its connection lead.

Only one connection terminal of the two remaining connection terminals on the test lead must be connected with the special input of the motor-tester.

Caution:

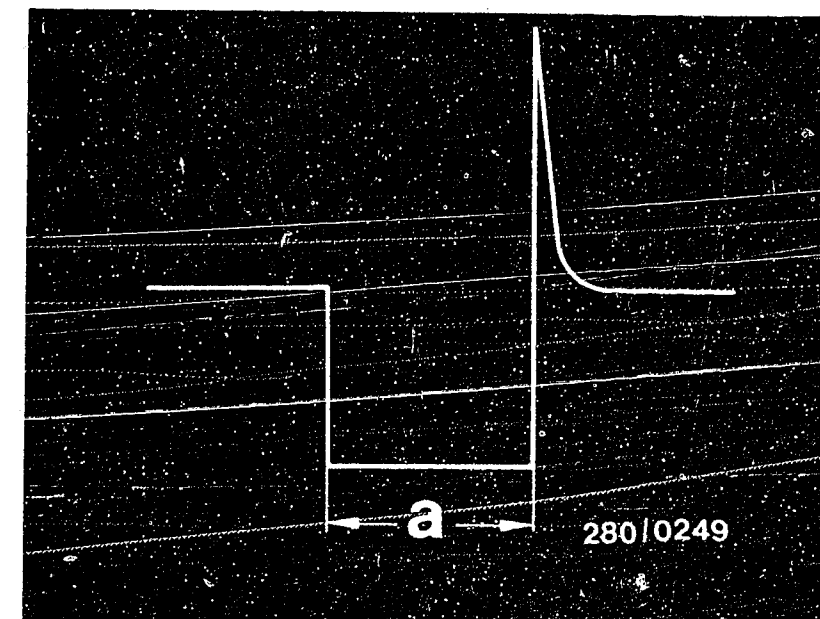
The other connection terminal must not come into contact with the vehicle ground!

The adjacent picture is visible on the oscilloscope when connection is correct. With the aid of the test lead, the injection pulses can be tested in the solenoid-operated injection valves with running engine with an ignition oscilloscope.

If the adjacent picture is not achieved, or deviations (interference, misfires, etc.) are visible, the other solenoid-operated injection valves must also be examined. In case of interference, test lead wiring.  
In case of misfire, correct loose contacts in leads or in plug connections.

yes

Continued on H9/H10



Injection pulse of a switched output stage (measured on the solenoid-operated injection valve).  
a = Pulse length (dependent on the engine load)

**H7**

Eng. missing under all driving conditions  
Citroen CX GTI/Prestige/Pallas



**H8**

Eng. missing under all driving conditions  
Citroen CX GTI/Prestige/Pallas



Engine missing under all operating conditions (continued)

Air-flow sensor O.K.?

no

Testing:

Unscrew the air hose from the air-flow sensor.

Open air-flow sensor flap by hand.

It must be possible to open the air-flow sensor flap with uniform ease from its fully closed position to its fully open position. When released, the flap must close completely by itself. When the air-flow sensor flap is opened it must not catch at any point. Watch for any indications of abrasion or rubbing. Clean air-flow sensor if the inside is very dirty and rub out with a lint-free cloth. If there are any signs of abrasion or rubbing, replace the air-flow sensor.

Connect ohmmeter to term. 7 and term. 8 of air-flow sensor.

Measure resistance.

Deflect air-flow sensor flap.

Test specification: 100 ... 500  $\Omega$

Checking the pump contact:

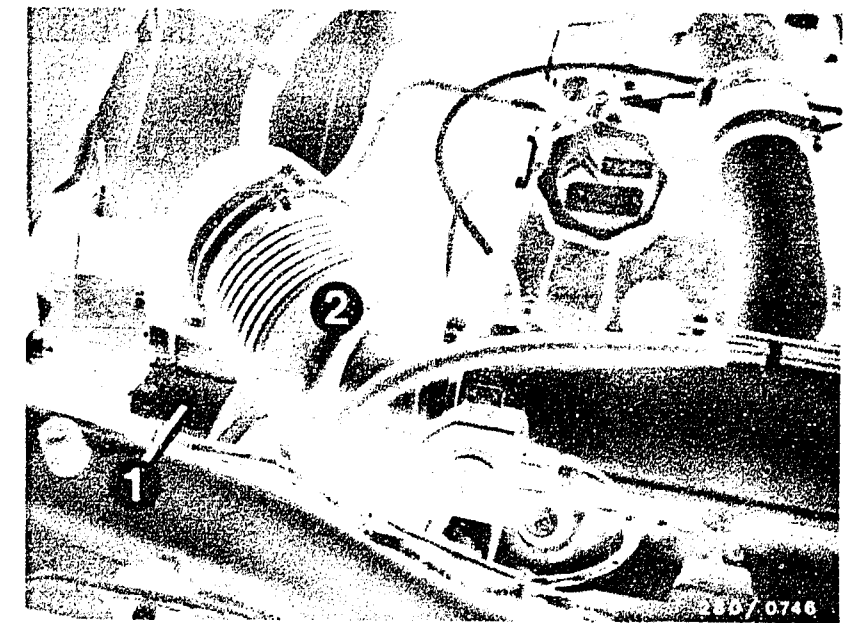
Disconnect the plug on the air-flow sensor, measure the resistance value using an ohmmeter between Term. 36 and Term. 39: Deflect the air-flow sensor flap.

Specified value approx. 0  $\Omega$

yes

Continued on H15/H16

Continued on H11/H12



1 = Air-flow sensor

2 = Air hose between air-flow sensor and intake manifold

Arrow = Pushing open the air-flow sensor flap

**H9**

Eng. missing under all driving conditions  
Citroen CX GTI/Prestige/Pallas



**H10**

Eng. missing under all driving conditions  
Citroen CX GTI/Prestige/Pallas



Engine missing under all operating conditions (continued)

### Potentiometer test (noise test):

Dismount air-flow sensor. (Loosen hose clamps on both sides of air-flow sensor, and fastening screws for air-flow sensor on battery mounting. Leave connection plug connected.) Place motor-tester on special input and connect with special cable to air-flow sensor term. 7 (red clip) and term. 6 (black clip).

### Manufacture adapter lead:

User fabrication: Two leads of approx. 1 m in length and approx. 1.5 mm<sup>2</sup> diameter. 2 test prods are fastened to one end. Insulate approx. 2 cm at other end and connect terminal for special input connection lead.

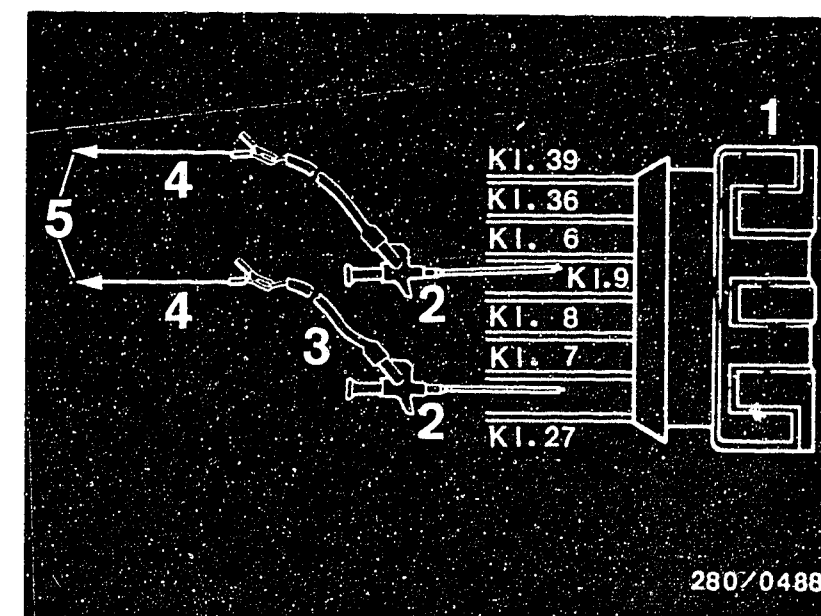
### Caution!

Insulate bare connections on adapter lead. (Danger of short-circuit!) Measure carefully into connection plug of air-flow sensor. Do not bend plug springs. Adjust control lever for framing on motortester to left stop (calibrated position). Ignition "ON". Deflect flap on air-flow sensor several times by pushing. In good air-flow sensor a stroke signal must be visible without alarm on the oscilloscope. In defect air-flow sensor, a noise signal similar to adjacent picture is visible. Replace air-flow sensor. Disconnect adapter lead after test and replace rubber grommet correctly. Mount air-flow sensor. Replace all hoses and tighten (leakage).

yes

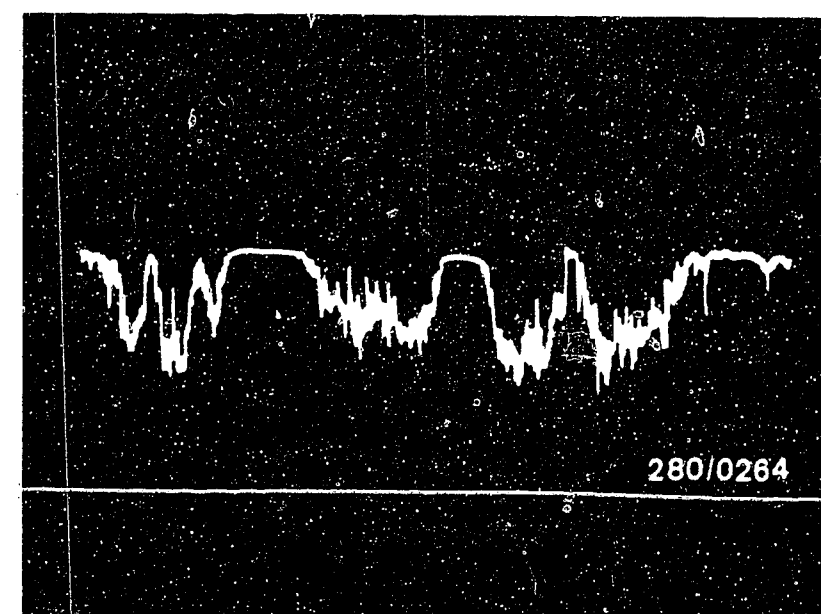
Continued on H15/H16

Continued on H13/H14



- 1 = Air-flow sensor connection plug
- 2 = Terminal test prod
- 3 = Adapter lead (user fabrication)
- 4 = Special input connection
- 5 = Motortester special input

Noise signal in faulty air-flow sensor



**H11**

Eng. missing under all driving conditions  
Citroen CX GTI/Prestige/Pallas



**H12**

Eng. missing under all driving conditions  
Citroen CX GTI/Prestige/Pallas



Engine missing under all operating conditions (continued)

yes

Stop engine while hot: Remove plug from air-flow sensor and connect ohmmeter to term. 6 and term. 36. Positive pole of ohmmeter to term. 6: approx.  $0\ \Omega$ . With reversed polarity: approx.  $\infty\ \Omega$ .

Procedure if incorrect:

1. Air-flow sensor up FD 051:  
Take out and replace air-flow sensor
2. Air-flow sensor as of FD 052:
  - a) If necessary, correct faulty contact in plug connection 88z, 86c and 85 on relay set.
  - b) If pump contact is bent, test CO adjustment.

Checking the CO adjustment:

0.8...1.5 vol. % CO

As of FD 248: CO-adjusting screw with socket hex AF5.

Idle adjustment:

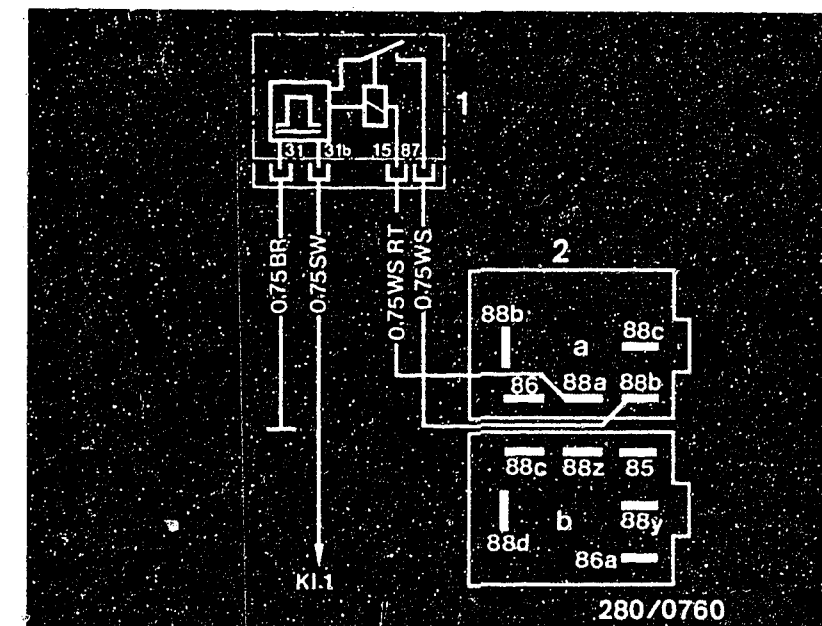
Manual transmission:  $850...900\ \text{min}^{-1}$

Automatic transmission  
(selector lever in position D  
and parking brake on):  $800...850\ \text{min}^{-1}$

Check the engine intake valves (valve clearance is too close).

If the air-flow sensor is completely O.K. except for the pump contact, the following solution can be used (see the installation plans at the right).

N.B.! Once the test has been completed, the air hose must be screwed back on the air-flow sensor. Check the connection for leaks.



1=Fuel pump relay  
Striebel CO  
(Part No. 89 64 60)

2=Relay set  
Connection base viewed from below  
a=Jetronic wiring harness  
b=Vehicle wiring harness  
Wiring harness for user-fabrication

Continued on H15/H16

**H13**

Eng. missing under all driving conditions  
Citroen CX GTI/Prestige/Pallas



**H14**

Eng. missing under all driving conditions  
Citroen CX GTI/Prestige/Pallas



Engine missing under all operating conditions (continued)

Fuel delivery O.K.?

no

Measuring the fuel delivery:

For testing, undo the junction between the fuel return hose (from pressure regulator) and fuel return line (to fuel tank). If necessary, extend hose and lead into a 5 l vessel with graduated scale.

Remove the air hose from the air-flow sensor.

Ignition "ON", open air-flow sensor flap by hand until pump operates.

Test specifications:

min. 700 cm<sup>3</sup>/30 s

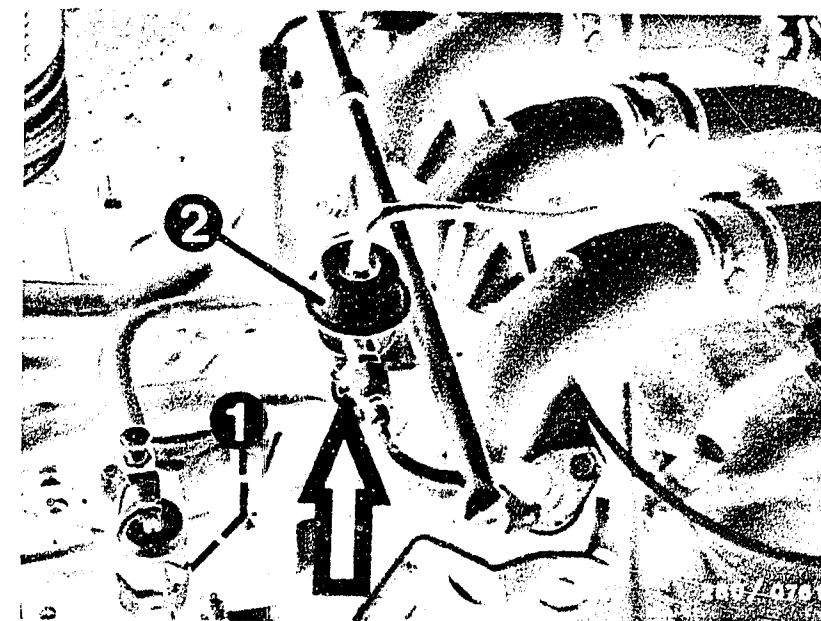
Remedy if test specification not reached:

- Fuel filter clogged → Replace
- Voltage at fuel pump plugs, with engine running min. 12 V. If not, clean contacts; possibly eliminate poor ground connection or replace leads.
- Fuel pressure regulator defective → Replace.
- Fuel pump performance insufficient: take out and replace the fuel pump.

After the test has been completed, the air hose on the air-flow sensor must be screwed back on. Check the connection for leaks.

yes

Continued on H17/H18

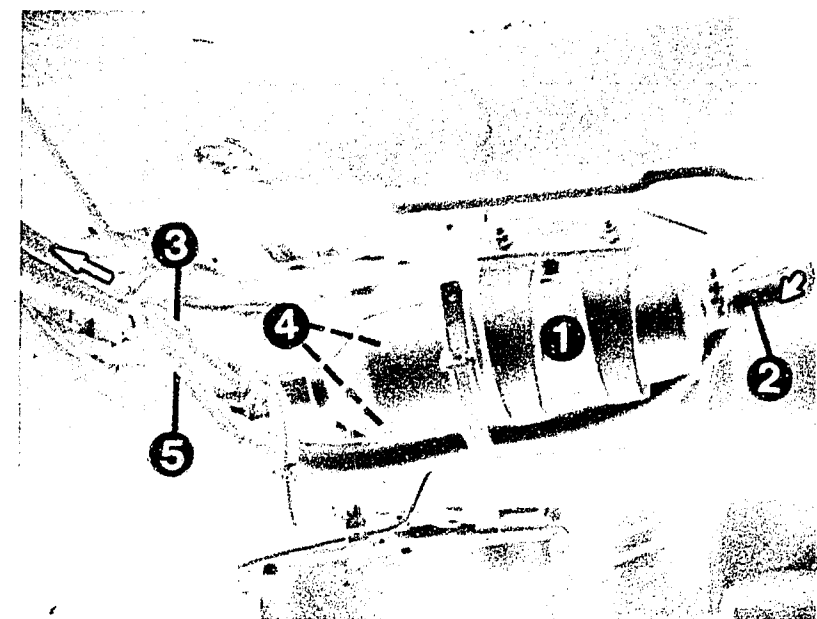


Arrow = Fuel return line

1 = Fuel filter

2 = Pressure regulator

1 = Electric fuel pump



**H15**

Eng. missing under all driving conditions  
Citroen CX GTI/Prestige/Pallas



**H16**

Eng. missing under all driving conditions  
Citroen CX GTI/Prestige/Pallas



Engine missing under all operating conditions (continued)

Is the control unit O.K.?

no

Run the engine. Shake the control unit lightly and move the multiple plug. Watch for engine missing. Correct the plug connection on the multiple plug or take out and replace a defective control unit.

yes

Sputtering on overrun?  
Throttle valve closed?  
CO and idle adjustment O.K.?

no

1. Check exhaust system for leaks.
2. Throttle valve closed?  
Find out whether or not the throttle valve is closing even further than permissible, causing the engine speed to drop.

Setting the throttle valve switch:  
(only for Type 0 280 120 301)

Release the fastening screws somewhat.  
Connect ohmmeter to Term. 2 and Term. 18.  
Turn the throttle valve switch to the right until the idle contact (microswitch) clicks audibly. (Reading 0  $\Omega$ ).

Checking the setting:

Pull the throttle cable slightly. The idle contact must click audibly (reading  $\infty \Omega$ ).

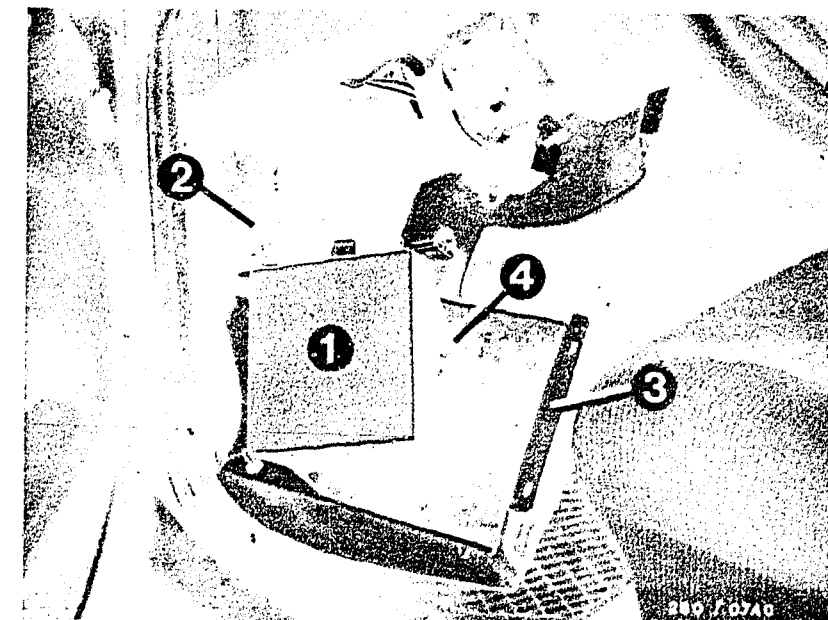
Trouble-shooting:

Check the following leads for continuity using an ohmmeter (specified value approx. 0  $\Omega$ ):

- From multiple plug Term. 2 to throttle valve switch Term. 2
- From throttle valve switch Term. 18 to multiple plug Term. 18
- Eliminate contact resistances at the plug connections.

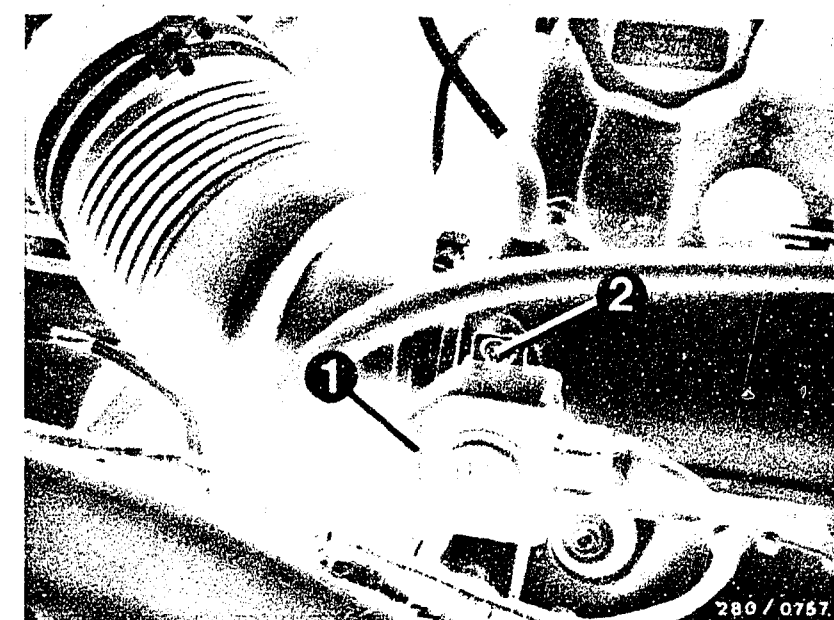
yes

Continued on H19/H20



1 = Control unit  
2 = Jetronic wiring harness

1 = Throttle valve switch  
2 = Fastening screws



**H17**

Eng. missing under all driving conditions  
Citroen CX GTI/Prestige/Pallas



**H18**

Eng. missing under all driving conditions  
Citroen CX GTI/Prestige/Pallas



Engine missing under all operating conditions (continued)

yes

### 3. CO and idle adjustment

Exhaust-gas test with CO analyzer with engine at normal operating temperature and at idle speed

Idle speed

Manual transmission:  $850 \dots 900 \text{ min}^{-1}$

Automatic transmission  
(selector lever in  
position D and parking  
brake on)  $800 \dots 850 \text{ min}^{-1}$

CO adjustment:  $0.8 \dots 1.5 \text{ vol. \% CO}$

As of FD 248: CO adjusting screw with  
socket hex AF5.

If CO concentration too high, turn bypass screw  
(CO adjusting screw) in air-flow sensor half a  
turn in a counterclockwise direction. Check en-  
gine speed and CO concentration again. Carry  
out adjustments in several steps.

After adjusting, use new plugs.

Testing completed for customer  
complaint

"Engine missing under all opera-  
ting conditions".

Customer complaint remedied?

no

### Further possibilities:

- Customer complaint incorrectly diagnosed  
(See Coordinates B3...B8).  
If the fault has not been detected by "Direct  
trouble-shooting", see "Detailed trouble-shoot-  
ing" (Coordinates B3/B4).
- Engine not mechanically O.K.  
(Compression, valve setting, valve timing, worn  
camshaft).

**H19**

Eng. missing under all driving conditions  
Citroen CX GTI/Prestige/Pallas



**H20**

Eng. missing under all driving conditions  
Citroen CX GTI/Prestige/Pallas





## FUEL CONSUMPTION TOO HIGH

Trouble-shooting program according to customer complaints

How to use the following trouble-shooting program

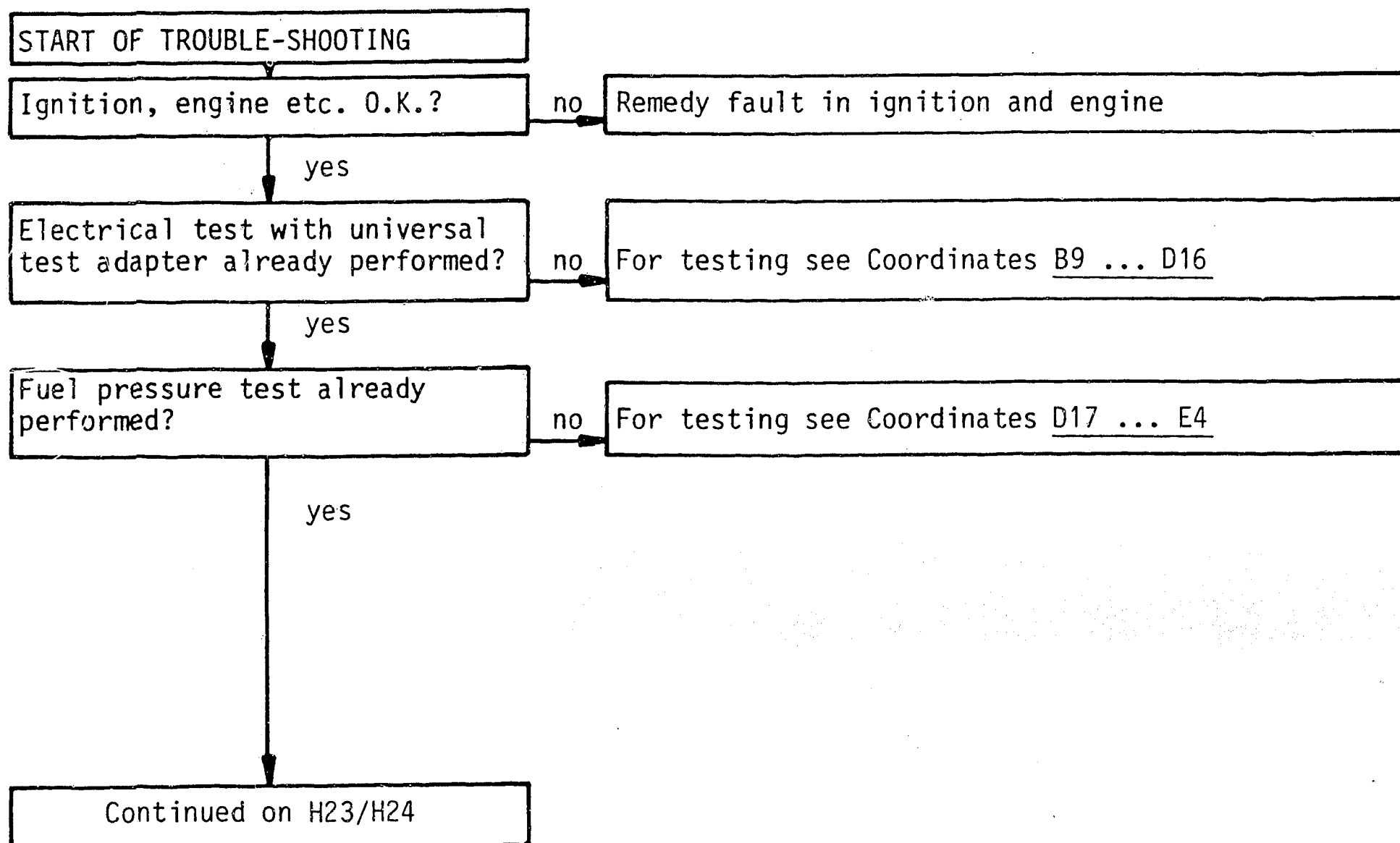
The program is divided into three rows of boxes:

- The left-hand row contains the questions on the tests.
- The middle row contains descriptions of the testing and adjustment operations on the components.
- The right-hand row contains the illustrations belonging to the text and explains the illustrations.

If the questions can be answered conclusively with "yes" without testing, proceed to the next question below.

If, on the other hand, the answer to the question is "no", and you suspect a fault, branch to the middle row of boxes and carry out the tests given there.

When you have finished testing continue trouble-shooting at the point at which you branched off.



**H21**

Fuel consumption too high

Citroen CX GTI/Prestige/Pallas



**H22**

Fuel consumption too high

Citroen CX GTI/Prestige/Pallas



Fuel consumption too high (continued)

Have all brakes released fully?

yes

Start valve O.K.?

no

yes

Continued on J1/J2

### Testing the start valve for leaks:

#### 1. When installed

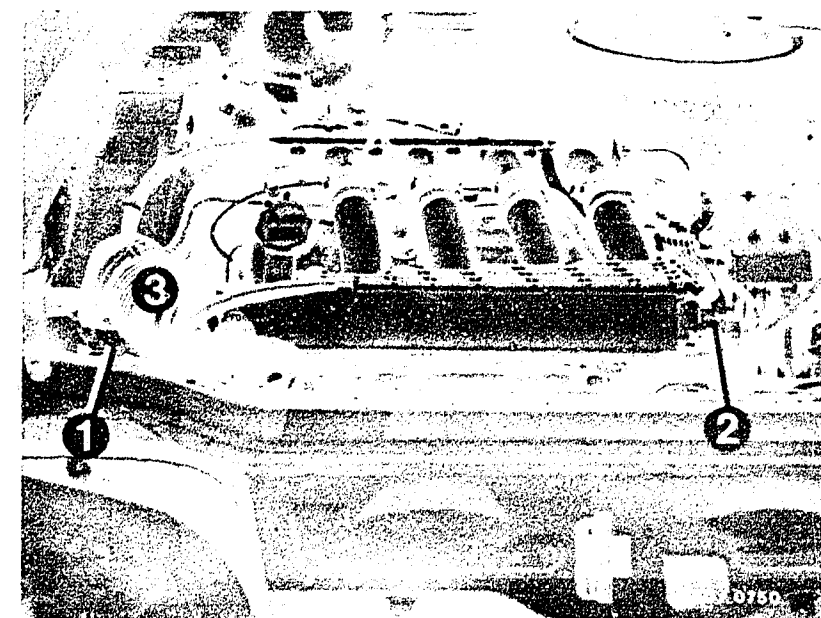
Pinch off the fuel delivery line to the start valve. If engine then runs smoothly, replace start valve.

#### 2. When removed

Remove start valve (Caution! Fire hazard!) Fuel line and electric lead remain connected (place collector vessel under the start valve). Build up fuel pressure. Release the hose on the air-flow sensor and remove it. Ignition "ON" and deflect the air-flow sensor flap.

Test specification: Within one minute max. 1 drop may form at the mouth of the valve.

Caution! After testing is completed, refit the hose between air filter and air-flow sensor. Check the connection on the air-flow sensor for leaks.



1 = Air-flow sensor  
2 = Start valve  
3 = Air hose

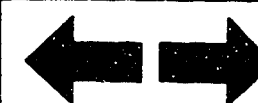
**H23**

Fuel consumption too high  
Citroen CX GTI/Prestige/Pallas



**H24**

Fuel consumption too high  
Citroen CX GTI/Prestige/Pallas



Fuel consumption too high (continued)

Temperature sensors tested?

no

#### Testing

Temperature sensor I measures the intake air temperature and is located in the air duct of the air-flow sensor. Measure the following values between term. 27 and term. 6 of air-flow sensor:

At ambient temperature  
(approx. + 15° C...+30° C): 1.45...3.3 kΩ

With engine at normal op. temp.  
(approx +80° C): 280 ... 360 Ω

Take measurements with ohmmeter directly on temperature sensor II (engine) (white plug).  
Measurement of resistance across Term. 13 and Term. 49 (ground):

At ambient temperature  
(approx. +15° C...+30° C): 1.30...3.6 kΩ

With engine at normal op. temp.  
(approx. +80° C): 250 ... 390 Ω

If incorrect, check for open circuit or short circuit in the following leads using ohmmeter:

#### Temperature sensor I:

- From multiple plug term. 27 to air-flow sensor term. 27.
- From air-flow sensor term. 6 to multiple plug term. 6.

#### Temperature sensor II

- From multiple plug term. 13 to temperature sensor II term. 13.
- From temperature sensor II term. 49 to central ground (lead 49).
- Test all contacts in plug connections.

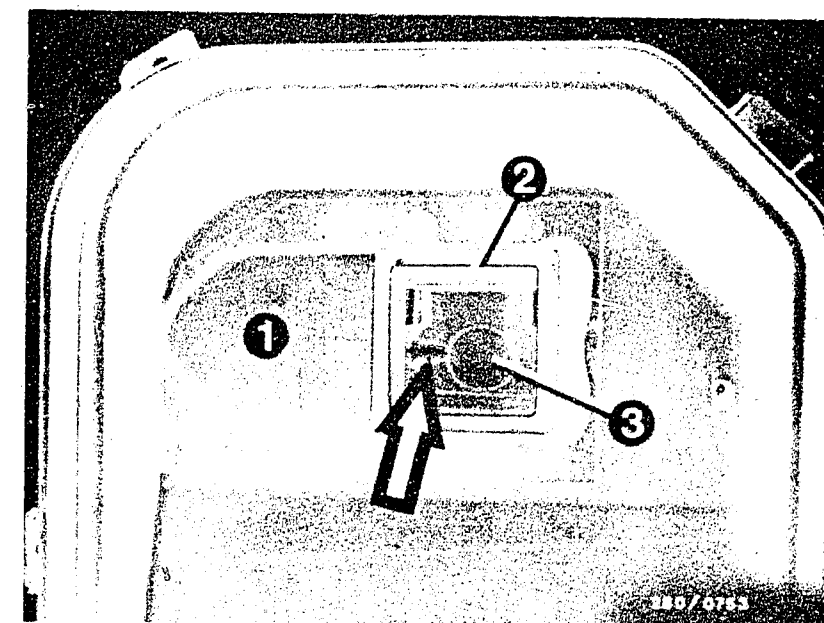
yes

Continued on J3/J4



Arrow = Temperature sensor II  
(Engine)  
(White plug)

Arrow = Temperature sensor I  
1 = Air filter cover  
2 = Air-flow sensor  
3 = Air-flow sensor flap



J1

Fuel consumption too high  
Citroen CX GTI/Prestige/Pallas



J2

Fuel consumption too high  
Citroen CX GTI/Prestige/Pallas



Fuel consumption too high (continued)

Solenoid-operated injection valve tested for functions (electrical)?

no

Connect test lead as follows:

The two-pole plug connections for test lead are switched between one solenoid-operated injection valve and its connection lead.

Only one connection terminal of the two remaining connection terminals on the test lead must be connected with the special input of the motor-tester.

The adjacent picture is visible on the oscilloscope when connection is correct. With the aid of the test lead, the injection pulses can be tested in the solenoid-operated injection valves with running engine with an ignition oscilloscope.

If the adjacent picture is not achieved, or deviations (interference, misfires, etc.) are visible, the other solenoid-operated injection valves must also be examined. In case of interference, test lead wiring. In case of misfire, correct loose contacts in leads or in plug connections.

Watch the injection pulse at idle.

Disconnect the throttle valve switch connection plug and jump Term. 3 and Term. 18. (Insulated jumper cables).

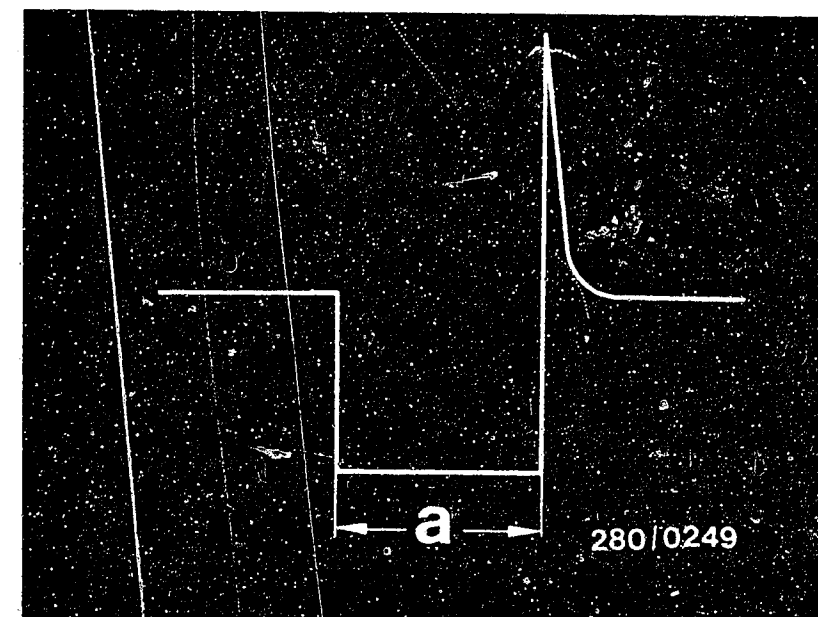
The injection pulse must now grow longer.

If not: check connecting leads from the multiple plug to the throttle valve switch (Term. 3 and Term. 18) for continuity.

N.B.! Do not bend the plug pins in the connecting plug.

If O.K., take out and replace the control unit.

Continued on J5/J6



Injection pulse of a switched output stage (measured on the solenoid-operated injection valve).

a = Pulse length (dependent on the engine load)

**J3**

Fuel consumption too high  
Citroen CX GTI/Prestige/Pallas



**J4**

Fuel consumption too high  
Citroen CX GTI/Prestige/Pallas



Fuel consumption too high (continued)

Are the solenoid-operated injection valves O.K. mechanically?

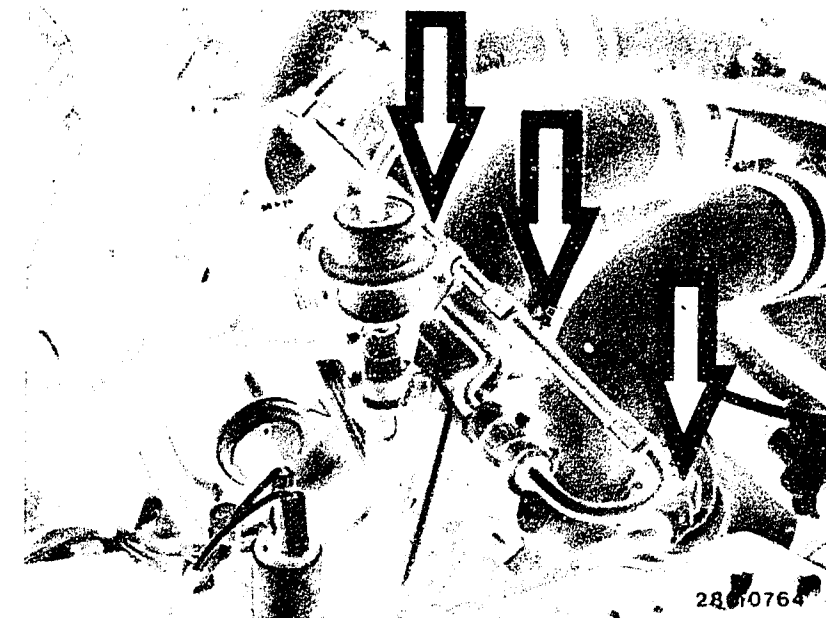
no

With the engine running, disconnect the solenoid-operated injection valve plugs individually, one after the other from the solenoid-operated injection valves and plug them back on. The engine speed must drop if the injection valve is O.K. Check the connection leads from relay set Term. 88b, via the series resistors Term. 43 and the solenoid-operated injection valves to control unit Term. 14, 15, 32, and 33 for continuity. If need be, take out and replace leads, series resistors, or solenoid-operated injection valves.

yes

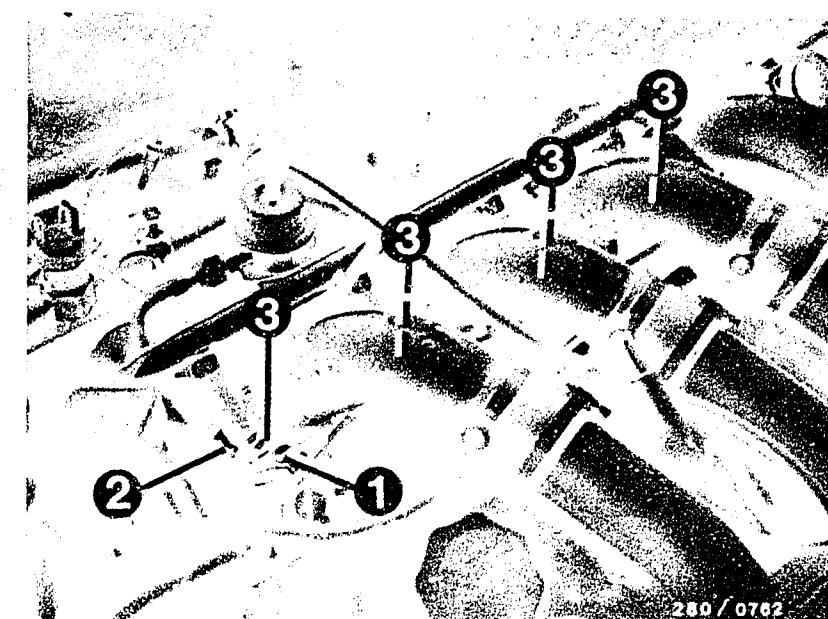
Continued on J13/J14

Continued on J7/J8



Up to 8.80 model  
Arrow = Solenoid-operated injection valve

As of 9.80 model  
1 = Fastening screws  
2 = Solenoid-operated injection valve plug  
3 = Solenoid-operated injection valve



**J5**

Fuel consumption too high  
Citroen CX GTI/Prestige/Pallas



**J6**

Fuel consumption too high  
Citroen CX GTI/Prestige/Pallas



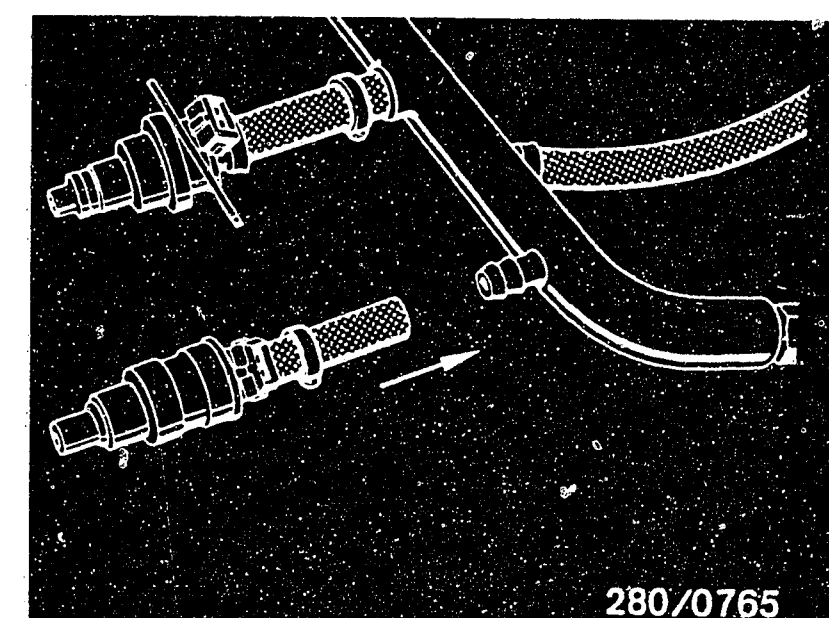
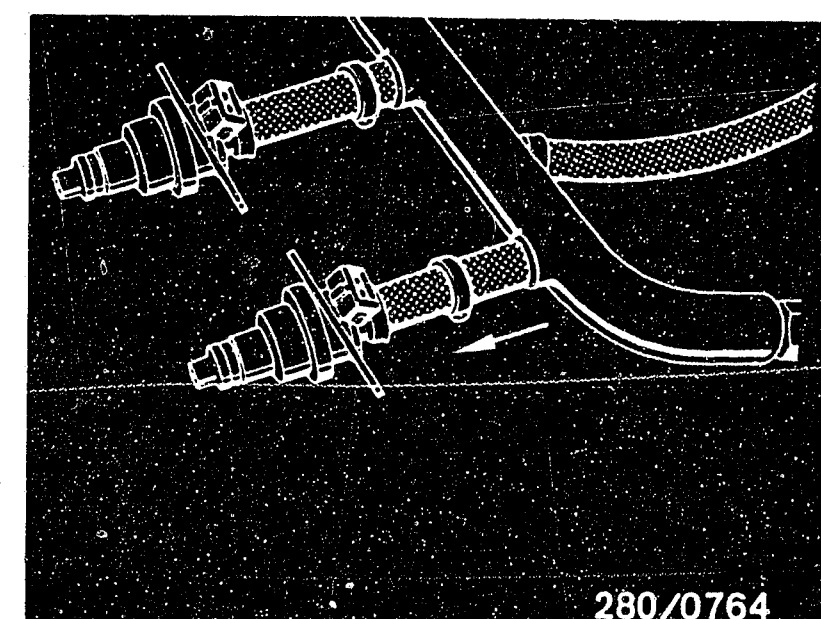
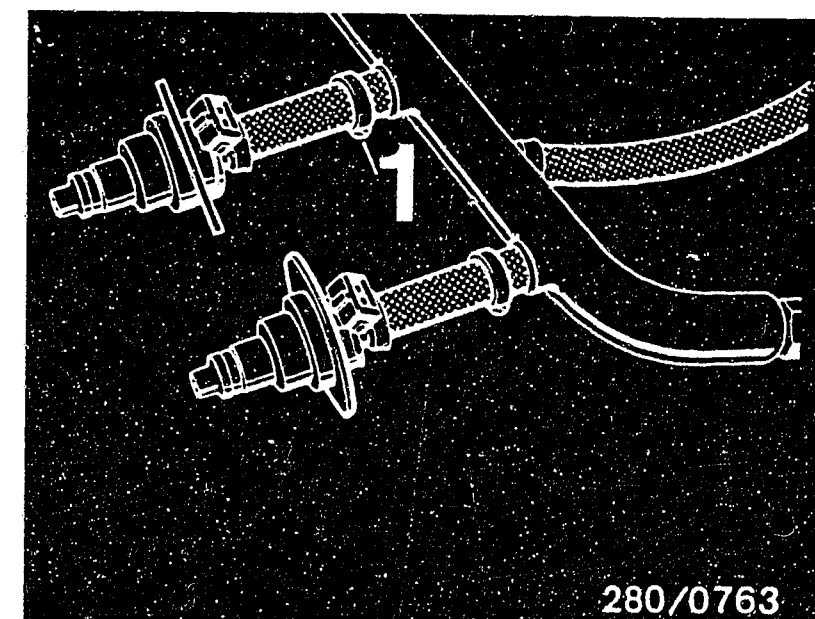
Fuel consumption too high (continued)

Removal of the solenoid-operated injection valves.  
Remove all solenoid-operated injection valves from the intake manifold. Release 2 screws.  
As of 9.80 model, remove the fuel distributor pipe by releasing 4 screws.  
Release the hose clip (1) on the solenoid-operated injection valves.  
Remove the fuel hose from the fuel distributor pipe.  
Mount the new solenoid-operated injection valve with a hose termination sleeve. To do this, wet the inside of the sleeve with fuel and shove it on until reaching the stop on the fitting. Make sure the position of the plug connection is correct in installation.  
N.B.! The hose clip on the solenoid-operated injection valves must be tightened securely. Check for leaks. (Fire hazard!)

yes

Continued on J13/J14

Continued on J9/J10



**J7**

Fuel consumption too high  
Citroen CX GTI/Prestige/Pallas



**J8**

Fuel consumption too high  
Citroen CX GTI/Prestige/Pallas



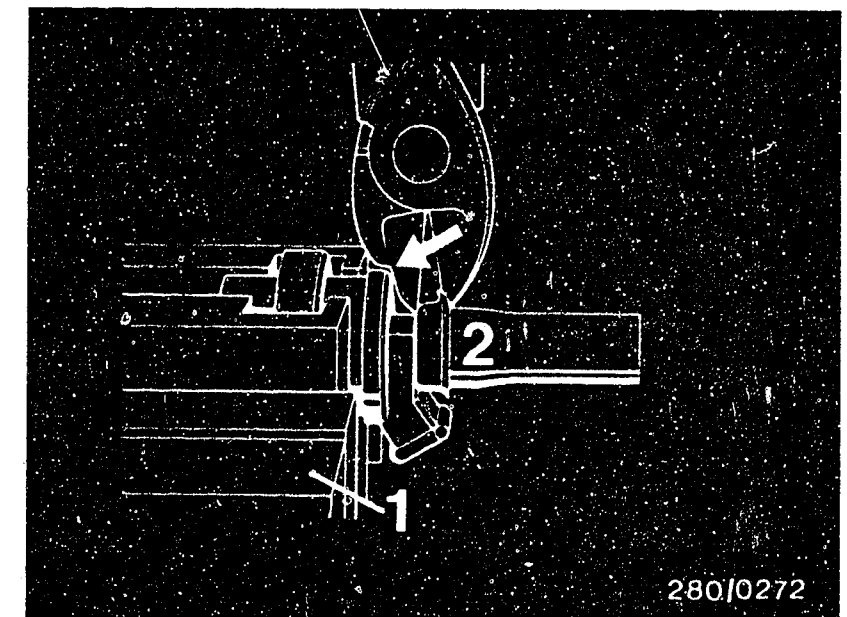
Fuel consumption too high (continued)

1. Removing the hose
  - 1.1 The fasteners on the injection valve (O-ring) need not be removed.
  - 1.2 Place injection valve in clamping fixture 1 688 120 093 and clamp in vise.
  - 1.3 Cut open hose-termination sleeve with side cutters and remove.
  - 1.4 Cut open the hose lengthways using a soldering iron or soldering gun and pull off.
2. Installing the hose
  - Parts set 1 287 010 701 is required for installation.
  - 2.1 Clean outside of tailpiece.
  - 2.2 Wet new fuel hose with fuel or calibrating oil.

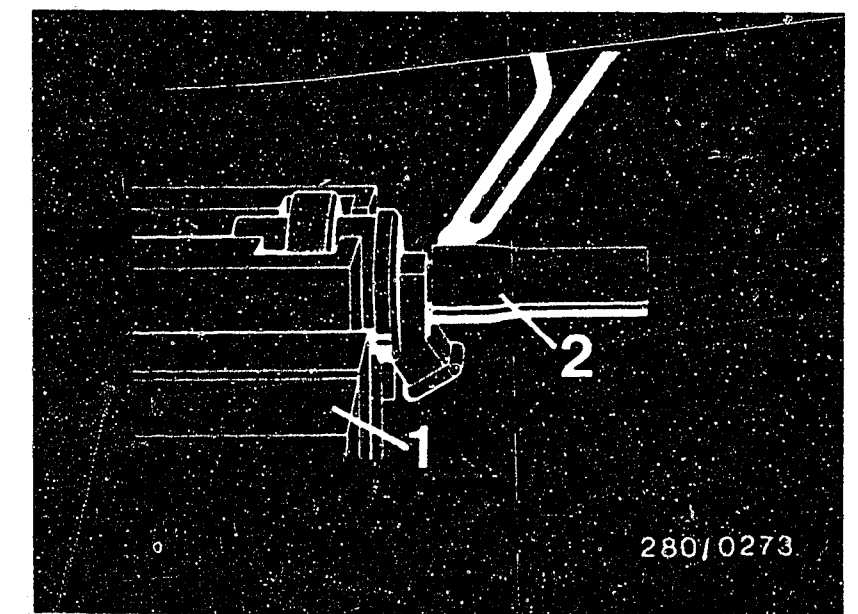
yes

Continued on J13/J14

Continued on J11/J12



- 1 = Clamping fixture  
(1 688 120 093)  
2 = Solenoid-operated injection valve



**J9**

Fuel consumption too high  
Citroen CX GTI/Prestige/Pallas



**J10**

Fuel consumption too high  
Citroen CX GTI/Prestige/Pallas





# Fuel consumption too high (continued)

yes

Continued on J13/J14

2.3 Push the hose and the hose termination sleeve manually using assembly mandrel 1 687 931 003 on until reaching the stop on the hose fitting. The hose termination sleeve must then be tight.

N.B.! Do not use any hose clip on the hose fitting of the solenoid-operated injection valve.

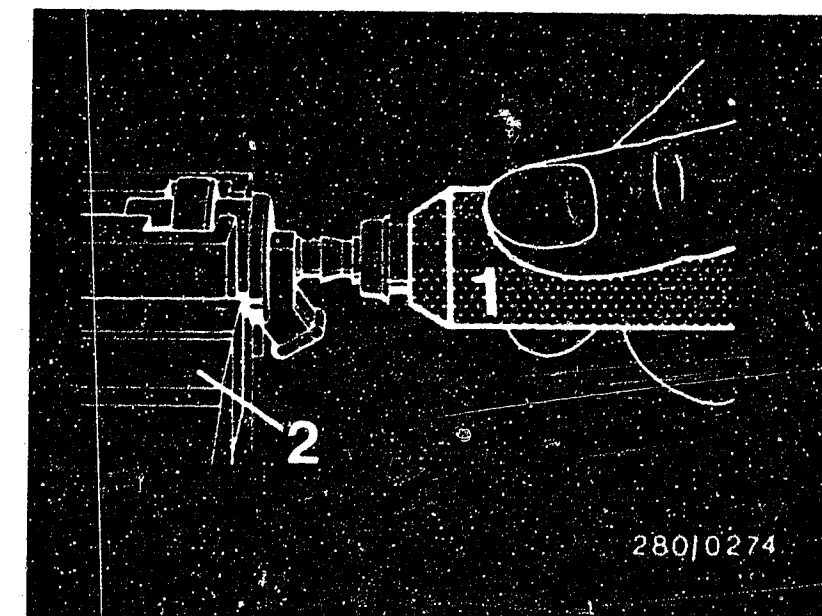
## Installation position of the injection valves

On every solenoid-operated injection valve, make sure the rubber ring is seated perfectly. Take out and replace defective gaskets. Take all 4 solenoid-operated injection valves with the fuel delivery hoses on them and push them uniformly into the fitting.

Important! All solenoid-operated injection valves must be installed without leaks. Tighten the hose clips on the solenoid-operated injection valves securely. (Fire hazard if there are leaks!)

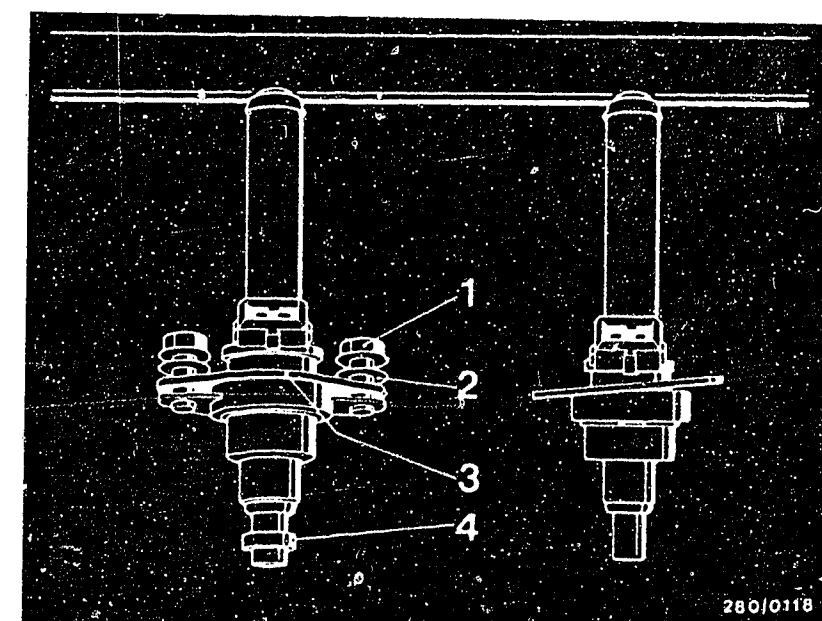
Put on all air and vacuum hoses. Screw on the fastening screws for the fuel distributor pipe. If the vacuum hoses have been taken out, put them back on.

Check all fuel and air hose connections once again for a tight fit. Start the engine and check to see that no unmetered air is being drawn in.



- 1 = Assembly mandrel (1 687 931 003)
- 2 = Clamping fixture

- 1 = Hex bolt
- 2 = Plain washer
- 3 = Bracket
- 4 = Rubber ring



**J11**

Fuel consumption too high  
Citroen CX GTI/Prestige/Pallas



**J12**

Fuel consumption too high  
Citroen CX GTI/Prestige/Pallas



Fuel consumption too high (continued)

Air-flow sensor O.K.?

no

Testing:

Unscrew the hose from the air-flow sensor. Open air-flow sensor flap by hand. It must be possible to open the air-flow sensor flap with uniform ease from its fully closed position to its fully open position. When released, the flap must close completely by itself. When the air-flow sensor flap is opened it must not catch at any point. Watch for any indications of abrasion or rubbing. Clean air-flow sensor of the inside is very dirty and rub out with a lint-free cloth. If there are any signs of abrasion or rubbing, replace the air-flow sensor. Connect ohmmeter to term. 7 and term. 8 of air-flow sensor.

Test specification: 100...500  $\Omega$

Removal: Remove 4 wing screws on the air filter. Release the rubber-metal fastening and disconnect the electrical connection. Take out the air-flow sensor together with the upper part of the air filter. Fastened using 4 screws. When re-installing, make sure position is correct, using the rubber stoppers as a guide. Do not forget the intermediate flange!

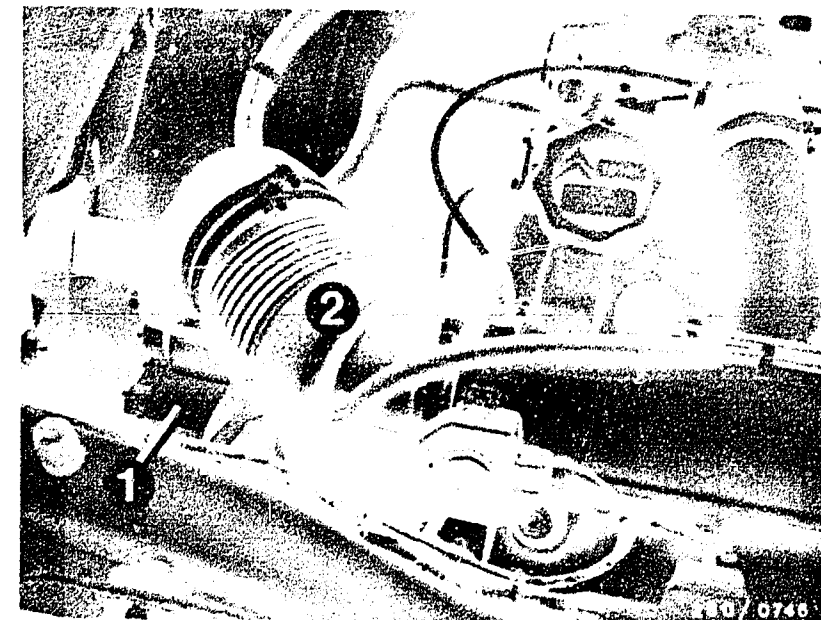
Checking the pump contact:

Disconnect the plug on the air-flow sensor, measure the resistance value using an ohmmeter between Term. 36 and Term. 39: Deflect the air-flow sensor flap. Specified value approx. 0  $\Omega$

N.B.! Once the test has been completed, the hose must be screwed back on the air-flow sensor. Check the connection for leaks.

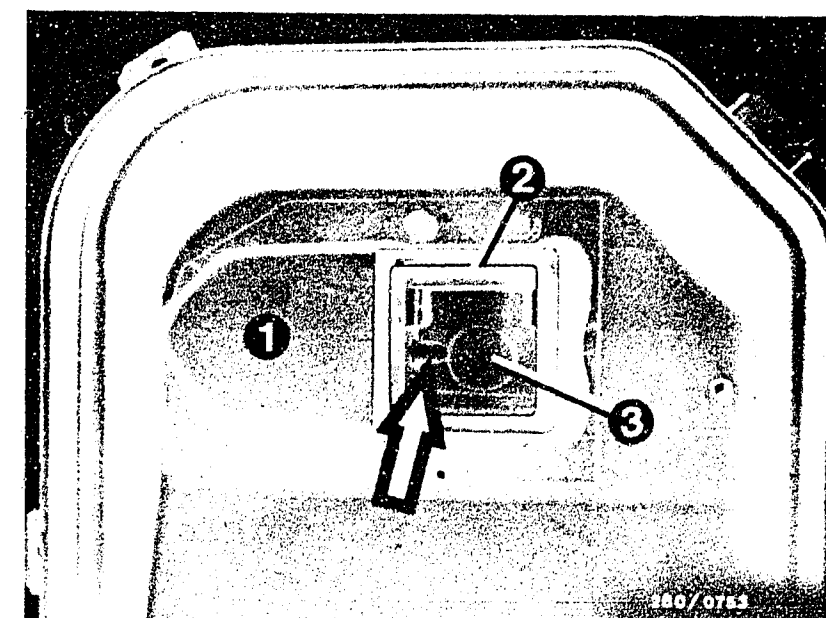
yes

Continued on J15/J16



- 1 = Air-flow sensor
- 2 = Hose between air-flow sensor and intake manifold

- Arrow = Temperature sensor I
- 1 = Air filter cover
  - 2 = Air-flow sensor
  - 3 = Air-flow sensor flap



**J13**

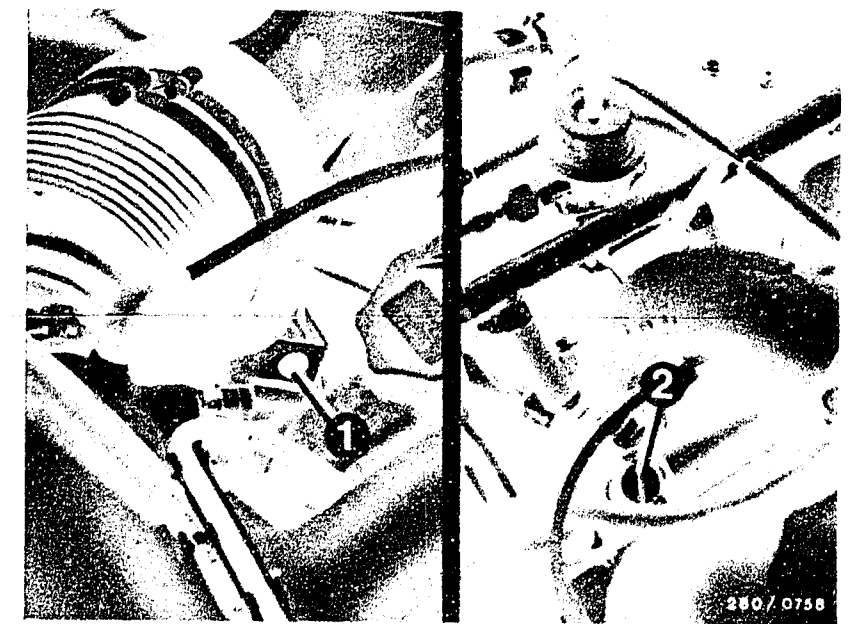
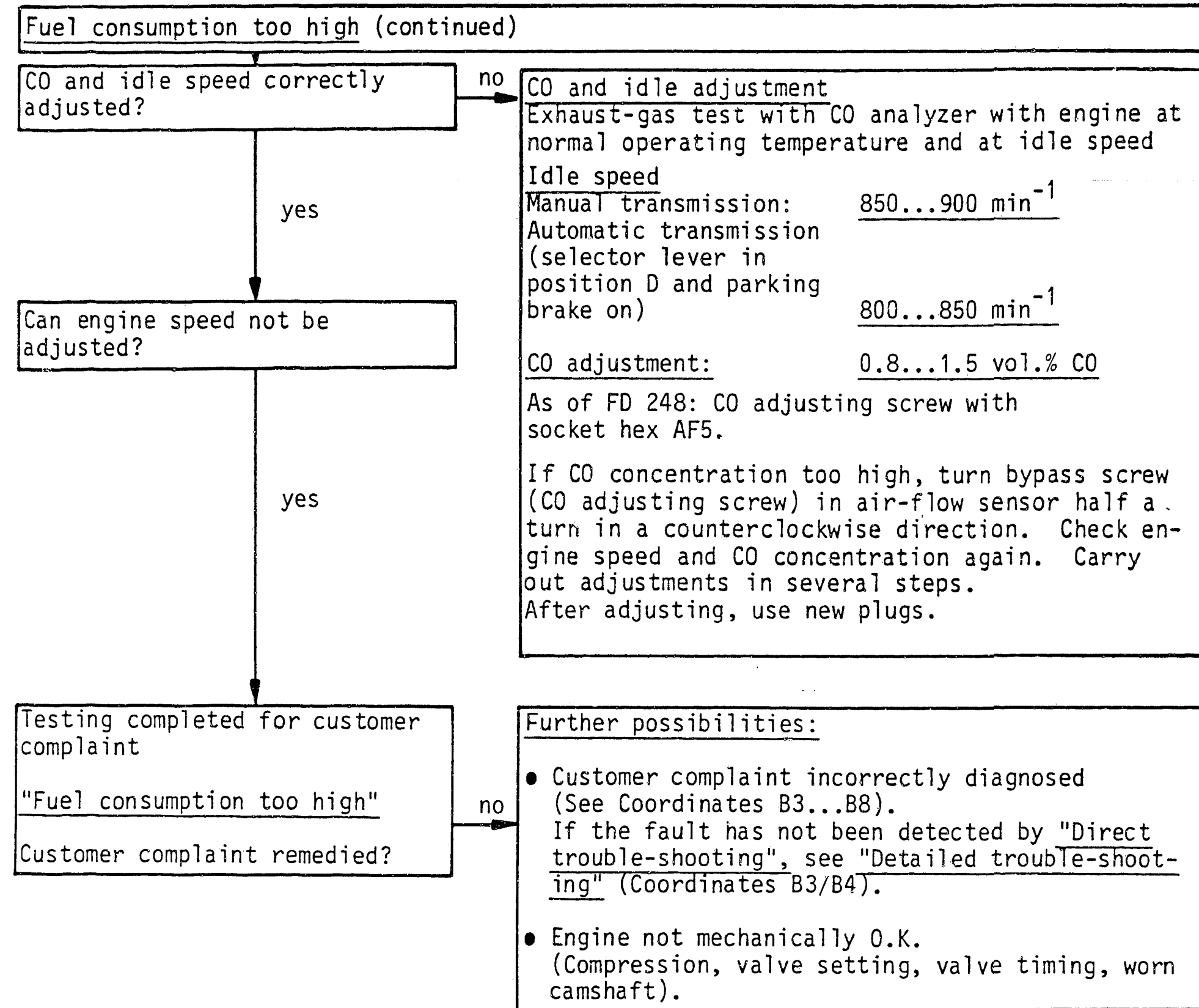
Fuel consumption too high  
Citroen CX GTI/Prestige/Pallas



**J14**

Fuel consumption too high  
Citroen CX GTI/Prestige/Pallas





1 = CO adjusting screw  
2 = Idle-speed-adjusting screw



## NO MAXIMUM ENGINE POWER, TOP SPEED NOT REACHED

### Trouble-shooting program according to customer complaints

#### How to use the following trouble-shooting program

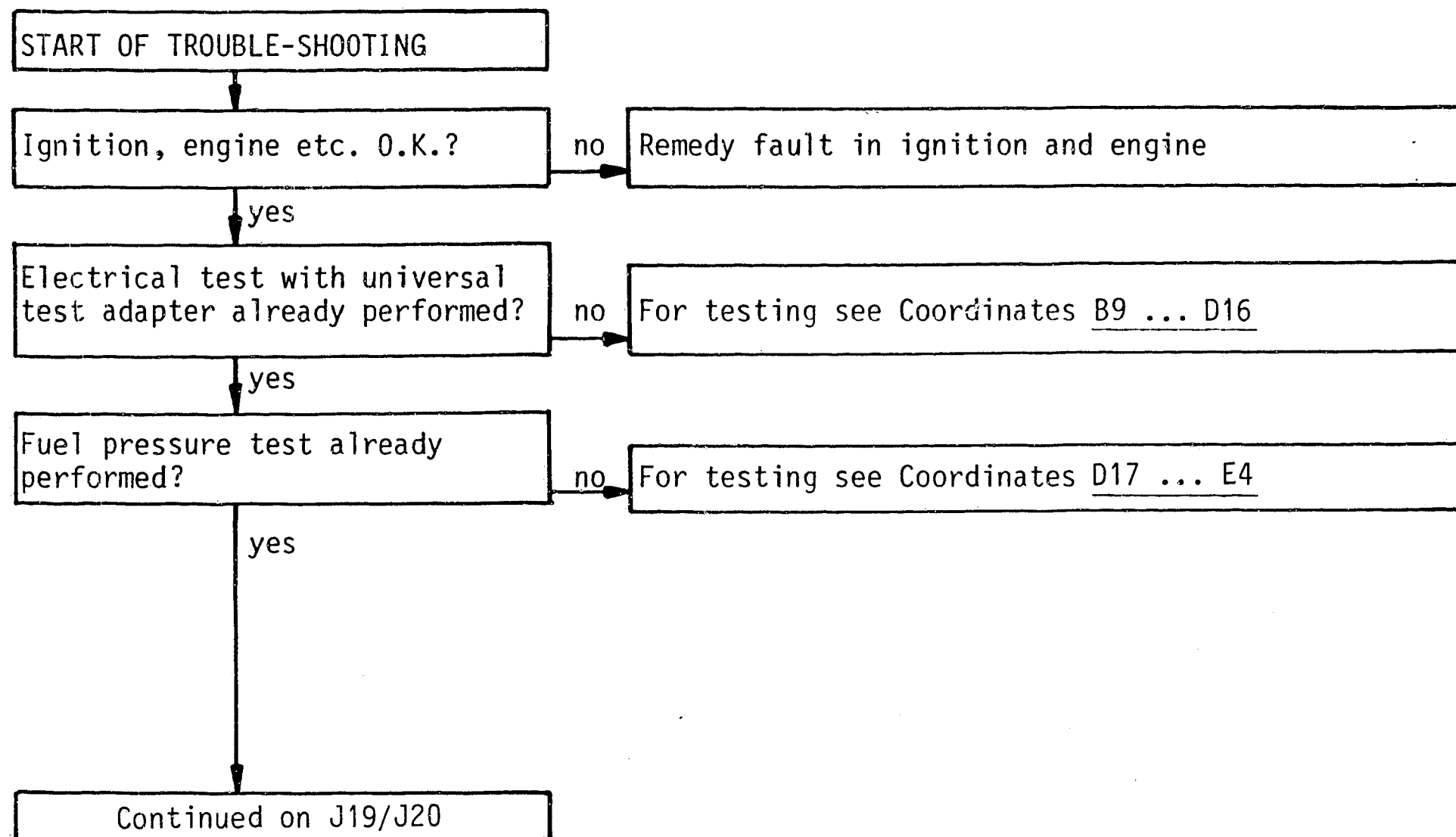
The program is divided into three rows of boxes:

- The left-hand row contains the questions on the tests.
- The middle row contains descriptions of the testing and adjustment operations on the components.
- The right-hand row contains the illustrations belonging to the text and explains the illustrations.

If the questions can be answered conclusively with "yes" without testing, proceed to the next question below.

If, on the other hand, the answer to the question is "no", and you suspect a fault, branch to the middle row of boxes and carry out the tests given there.

When you have finished testing continue trouble-shooting at the point at which you branched off.



**J17**

No maximum engine power  
Citroen CX GTI/Prestige/Pallas



**J18**

No maximum engine power  
Citroen CX GTI/Prestige/Pallas



No maximum engine power, top speed not reached (continued)

Throttle-valve switch O.K.?  
(Full-load enrichment)

Control unit faulty?

no

Connect test lead as follows:

The two-pole plug-in connections of the test lead are connected between an injection valve and its connecting lead.

Of the other two terminals of the test lead, only one terminal must be connected to the special input of the motortester.

Caution:

The other terminal must not be brought into contact with vehicle ground.

If the correct terminal is connected, the oscilloscope pattern shown opposite is visible. With the aid of the test lead it is possible to test the injection pulses at the injection valves with an ignition oscilloscope with the engine running.

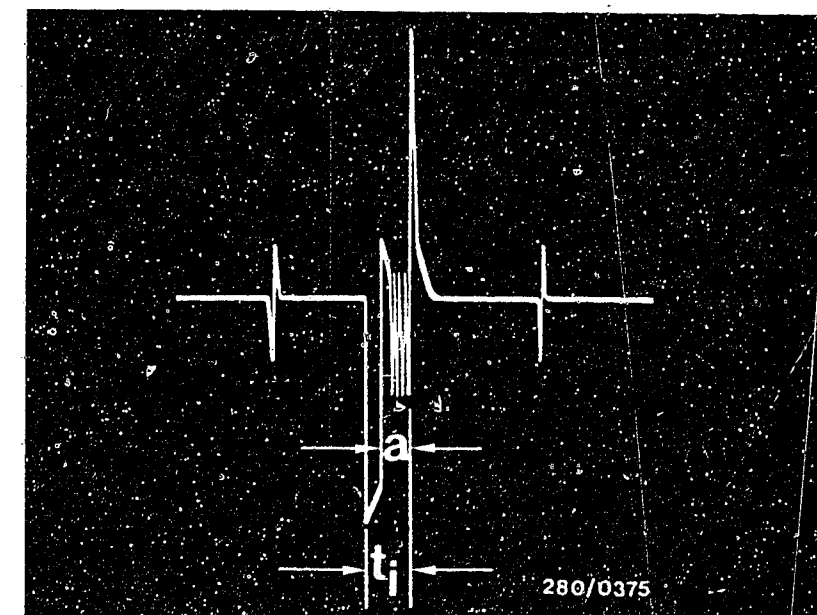
Observe the injection pulses at idle. Remove the throttle-valve switch plug and bridge term. 3 and term. 18 (using insulated wire).

Caution!

Do not bend terminals. Injection pulse must become longer. If not: Test connecting leads from multiple plug to throttle-valve switch (term. 3 and term. 18) for continuity. If O.K., replace control unit.

yes

Continued on J21/J22



Injection pulse of a switched output stage (measured on the solenoid-operated injection valve)  
a = Pulse length (dependent on the engine load)

**J19**

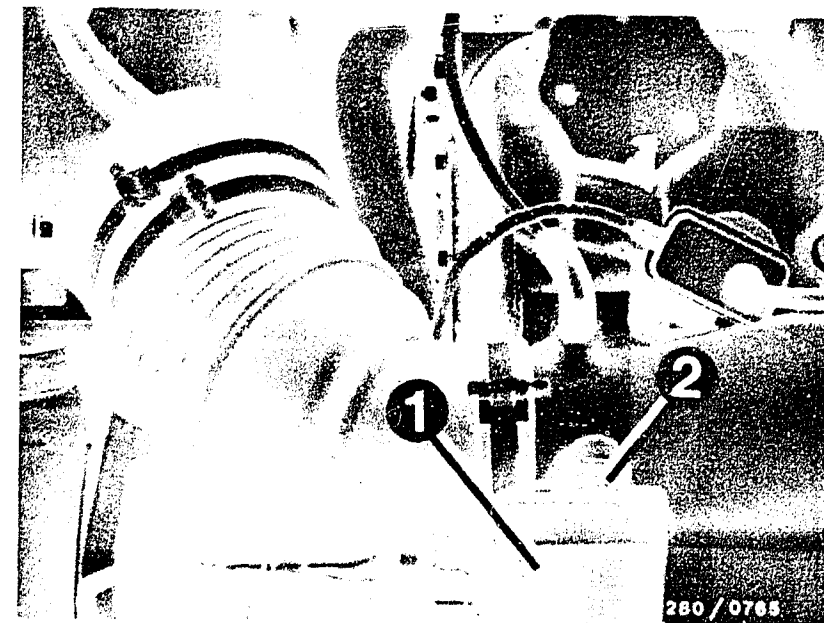
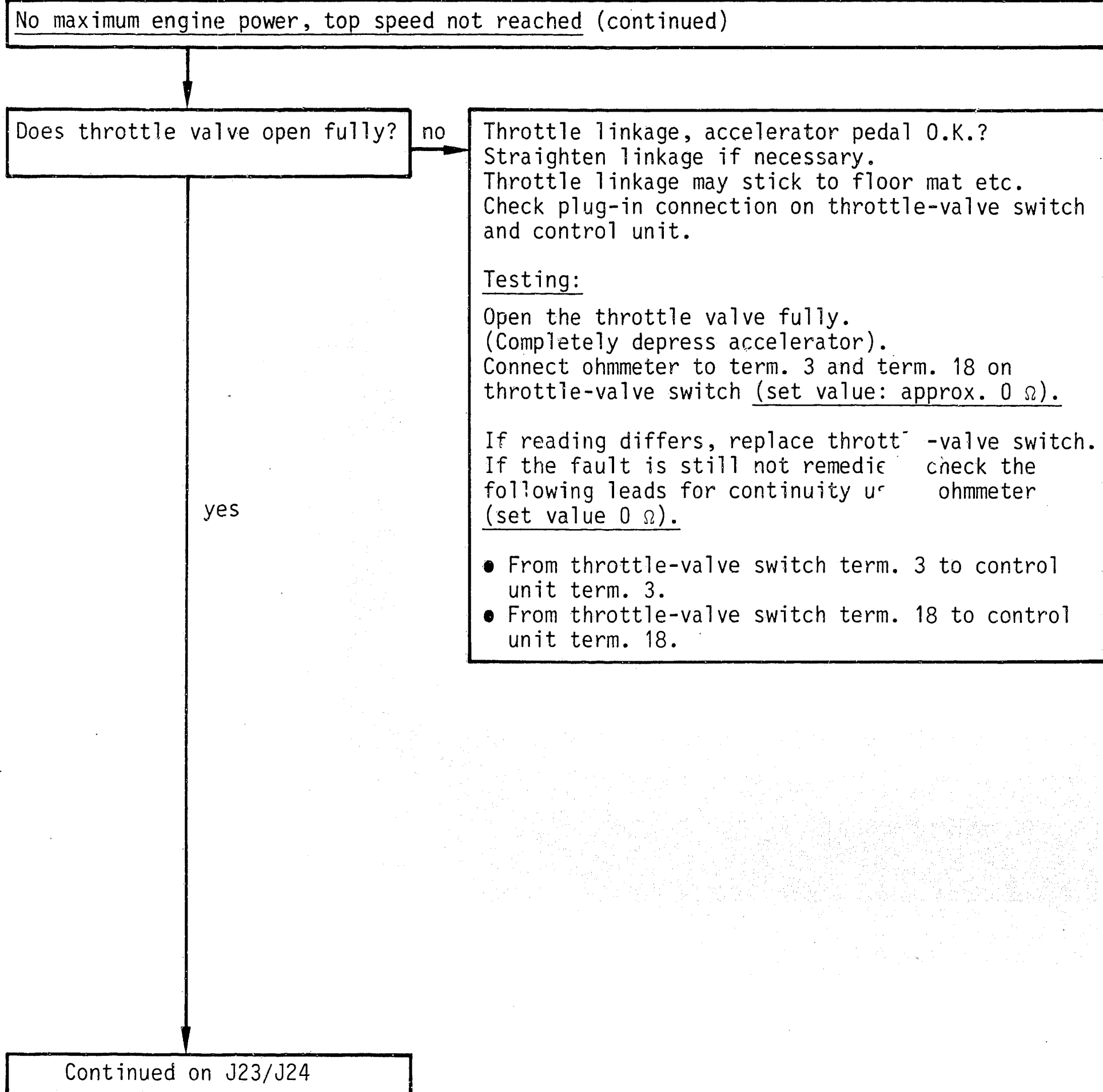
No maximum engine power  
Citroen CX GTI/Prestige/Pallas



**J20**

No maximum engine power  
Citroen CX GTI/Prestige/Pallas

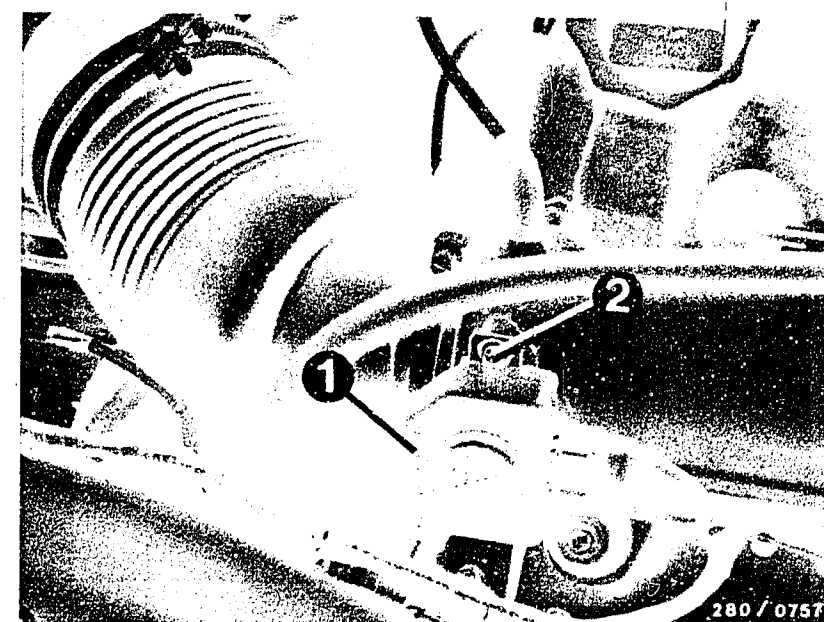




Up to 8.80 model

1 = Throttle valve switch  
2 = Fastening screws

As of 9.80 model



**J21**

No maximum engine power  
Citroen CX GTI/Prestige/Pallas



**J22**

No maximum engine power  
Citroen CX GTI/Prestige/Pallas



No maximum engine power, top speed not reached (continued)

Fuel delivery O.K.?

no

Measuring the fuel delivery:

For testing, undo the junction between the fuel return hose (from pressure regulator) and fuel return line (to fuel tank). If necessary, extend hose and lead into a 5 l vessel with graduated scale.

Remove the air hose from the air-flow sensor.

Ignition "ON", open air-flow sensor flap by hand until pump operates.

Test specifications:

min: 700 cm<sup>3</sup>/30 s

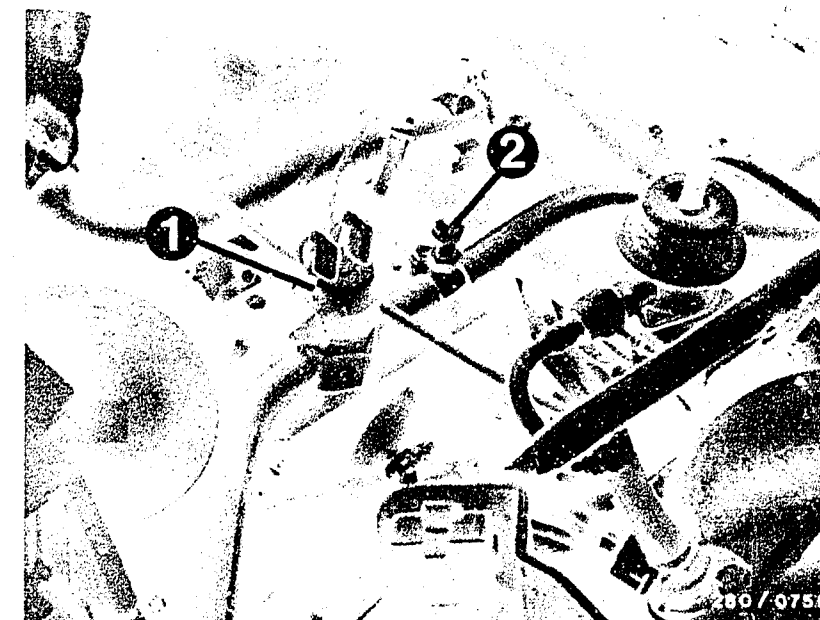
Remedy if test specification not reached:

- Fuel filter clogged → Replace
- Voltage at fuel pump plugs, with engine running min. 12 V. If not, clean contacts; possibly eliminate poor ground connection or replace leads.
- Fuel pressure regulator defective → Replace.
- Fuel pump performance insufficient: take out and replace the fuel pump.

After the test has been completed, the air hose on the air-flow sensor must be screwed back on. Check the connection for leaks.

yes

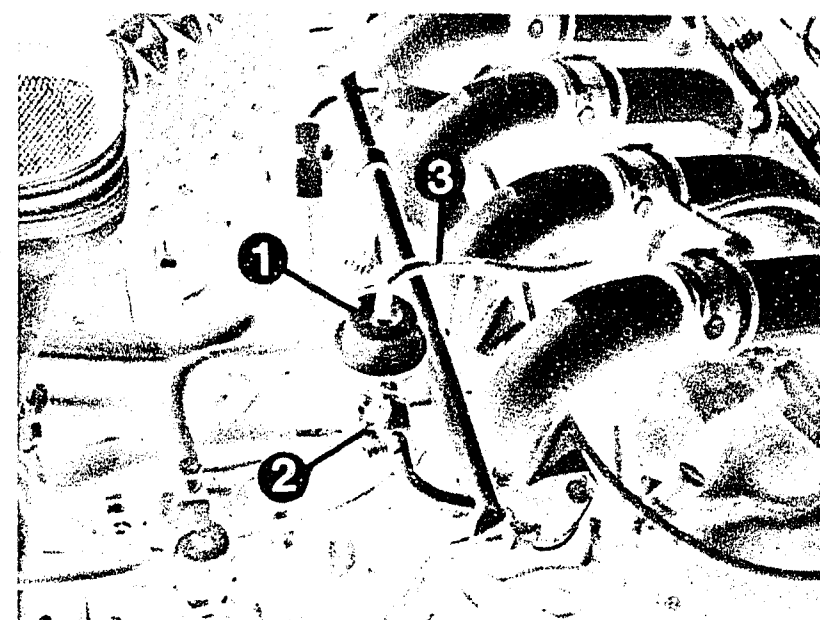
Continued on K1/K2



Up to 8.80 model

1 = Pressure regulator  
2 = Fuel return line

As of 9.80 model



**J23**

No maximum engine power  
Citroen CX GTI/Prestige/Pallas



**J24**

No maximum engine power  
Citroen CX GTI/Prestige/Pallas





No maximum engine power, top speed not reached (continued)

Air-flow sensor O.K.?

no

**Removal:** Remove 4 wing screws on the air filter. Release the rubber-metal fastening and disconnect the electrical connection. Take out the air-flow sensor together with the upper part of the air filter. Fastened using 4 screws.

**Testing:**

Unscrew the hose from the air-flow sensor. Open air-flow sensor flap by hand. It must be possible to open the air-flow sensor flap with uniform ease from its fully closed position to its fully open position. When released, the flap must close completely by itself. When the air-flow sensor flap is opened it must not catch at any point. Watch for any indications of abrasion or rubbing. Clean air-flow sensor of the inside is very dirty and rub out with a lint-free cloth. If there are any signs of abrasion or rubbing, replace the air-flow sensor. Connect ohmmeter to term. 7 and term. 8 of air-flow sensor.

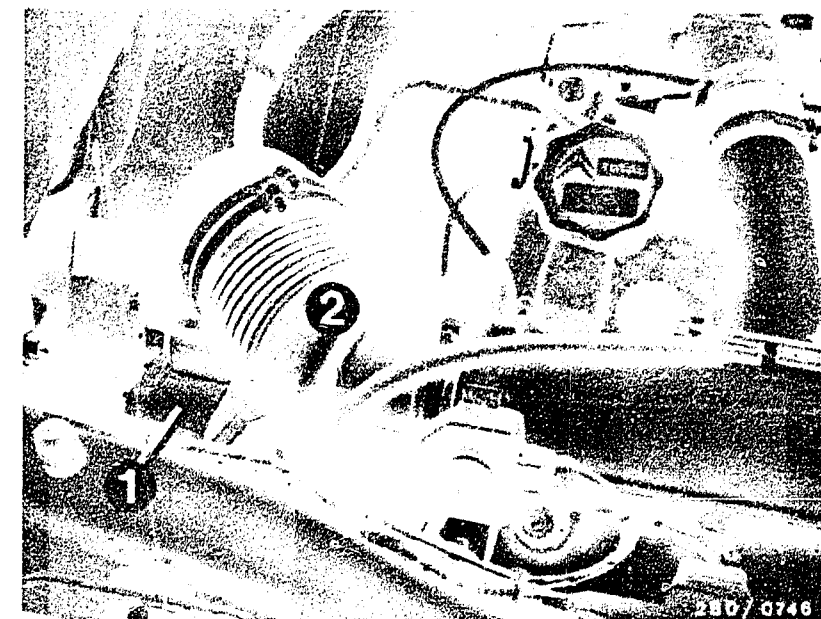
**Test specification:** 100...500  $\Omega$

When re-installing, make sure position is correct, using the rubber stoppers as a guide. Do not forget the intermediate flange!

**N.B.!** Once the test has been completed, the hose must be screwed back on the air-flow sensor. Check the connection for leaks.

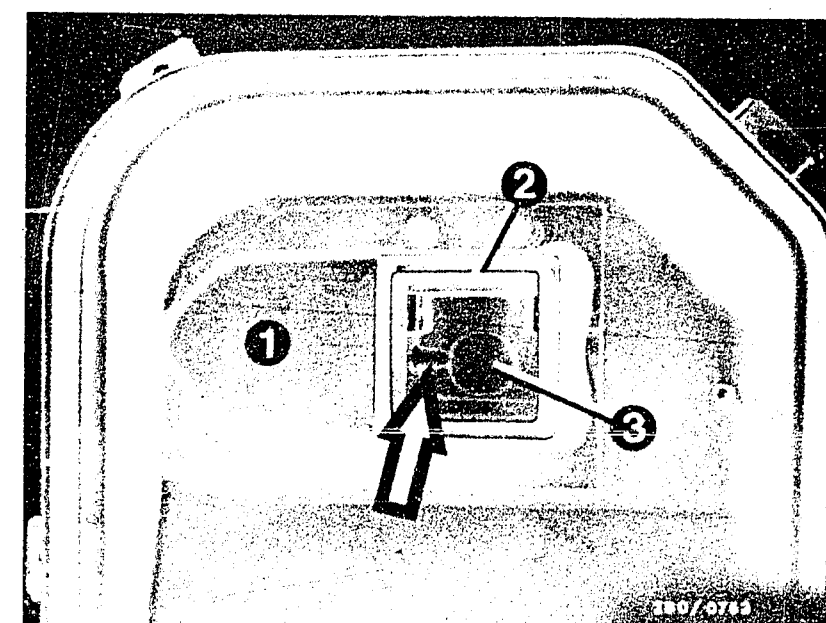
yes

Continued on K3/K4



1 = Air-flow sensor  
2 = Hose between air-flow sensor and intake manifold

Arrow = Temperature sensor I  
1 = Air filter cover  
2 = Air-flow sensor  
3 = Air-flow sensor flap



**K1**

No maximum engine power  
Citroen CX GTI/Prestige/Pallas



**K2**

No maximum engine power  
Citroen CX GTI/Prestige/Pallas



No maximum engine power, top speed not reached (continued)

Are the solenoid-operated injection valves O.K.?

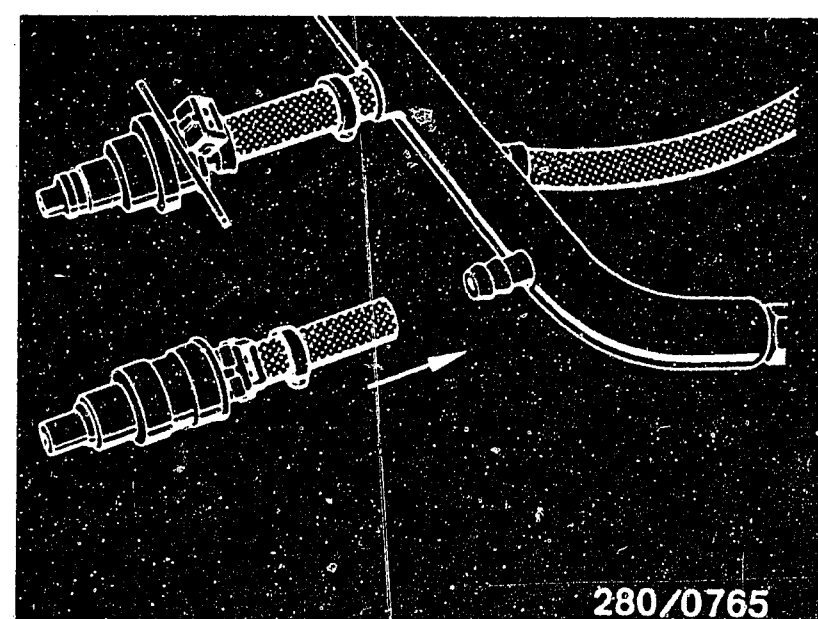
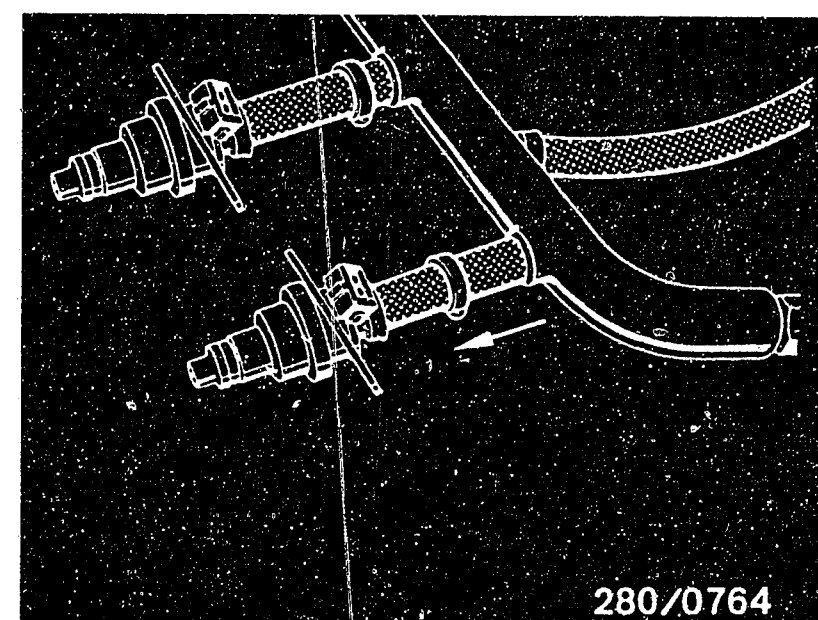
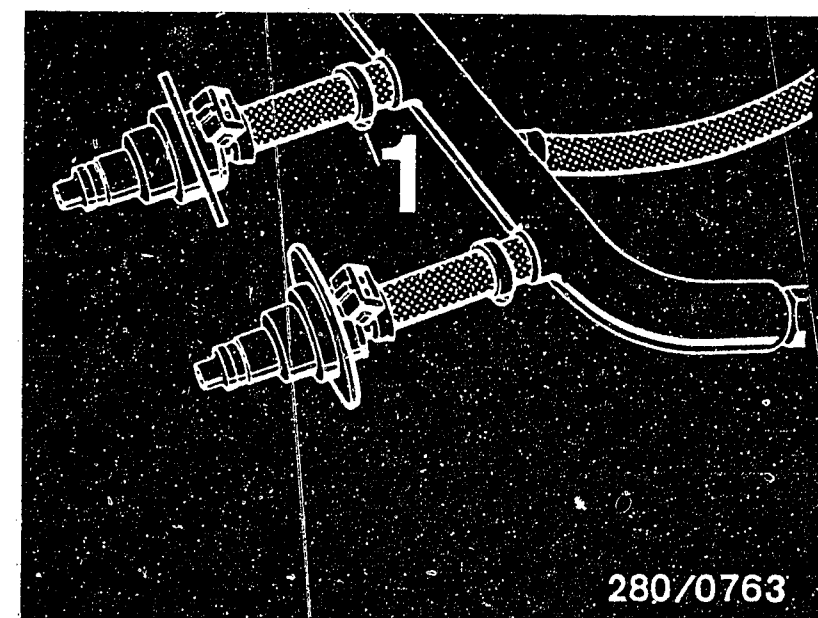
no

Removal of the solenoid-operated injection valves.  
Remove all solenoid-operated injection valves from the intake manifold. Release 2 screws.  
As of 9.80 model, remove the fuel distributor pipe by releasing 4 screws.  
Release the hose clip (1) on the solenoid-operated injection valves.  
Remove the fuel hose from the fuel distributor pipe.  
Mount the new solenoid-operated injection valve with a hose termination sleeve. To do this, wet the inside of the sleeve with fuel and shove it on until reaching the stop on the fitting. Make sure the position of the plug connection is correct in installation.  
N.B.! The hose clip on the solenoid-operated injection valves must be tightened securely. Check for leaks. (Fire hazard!)

yes

Continued on K9/K10

Continued on K5/K6



**K3**

No maximum engine power  
Citroen CX GTI/Prestige/Pallas



**K4**

No maximum engine power  
Citroen CX GTI/Prestige/Pallas



No maximum engine power, top speed not reached (continued)

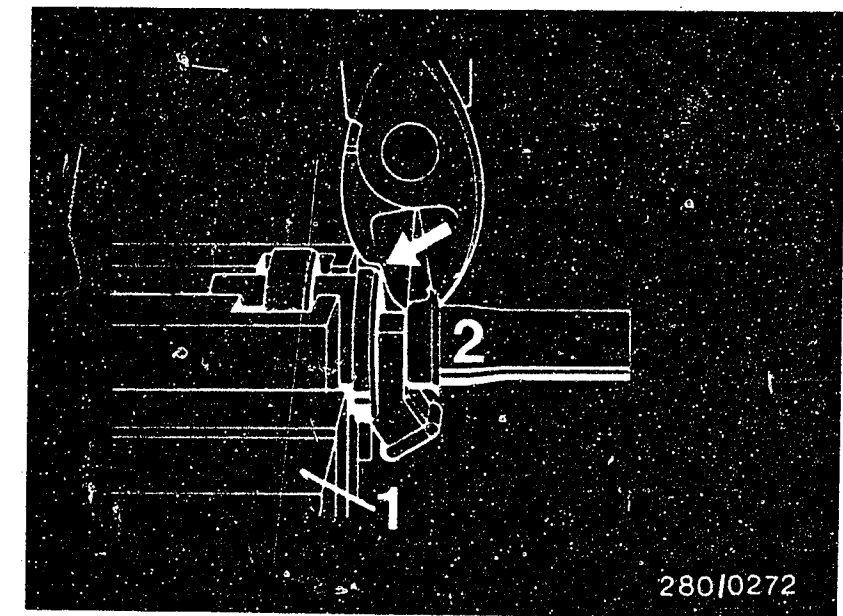
1. Removing the hose
  - 1.1 The fasteners on the injection valve (O-ring) need not be removed.
  - 1.2 Place injection valve in clamping fixture 1 688 120 093 and clamp in vise.
  - 1.3 Cut open hose-termination sleeve with side cutters and remove.
  - 1.4 Cut open the hose lengthways using a soldering iron or soldering gun and pull off.

2. Installing the hose
  - Parts set 1 287 010 701 is required for installation.
  - 2.1 Clean outside of tailpiece.
  - 2.2 Wet new fuel hose with fuel or calibrating oil.

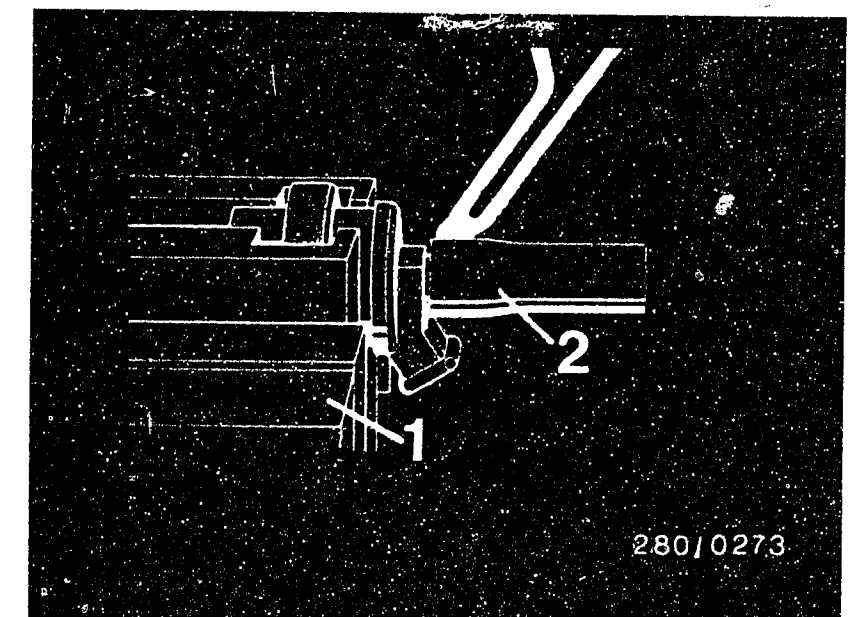
yes

Continued on K9/K10

Continued on K7/K8



1 = Clamping fixture  
(1 688 120 093)  
2 = Solenoid-operated injection  
valve



**K5**

No maximum engine power  
Citroen CX GTI/Prestige/Pallas



**K6**

No maximum engine power  
Citroen CX GTI/Prestige/Pallas



No maximum engine power, top speed not reached (continued)

2.3 Push the hose and the hose termination sleeve manually using assembly mandrel 1 687 931 003 on until reaching the stop on the hose fitting. The hose termination sleeve must then be tight.

N.B.! Do not use any hose clip on the hose fitting of the solenoid-operated injection valve.

#### Installation position of the injection valves

On every solenoid-operated injection valve, make sure the rubber ring is seated perfectly. Take out and replace defective gaskets. Take all 4 solenoid-operated injection valves with the fuel delivery hoses on them and push them uniformly into the fitting.

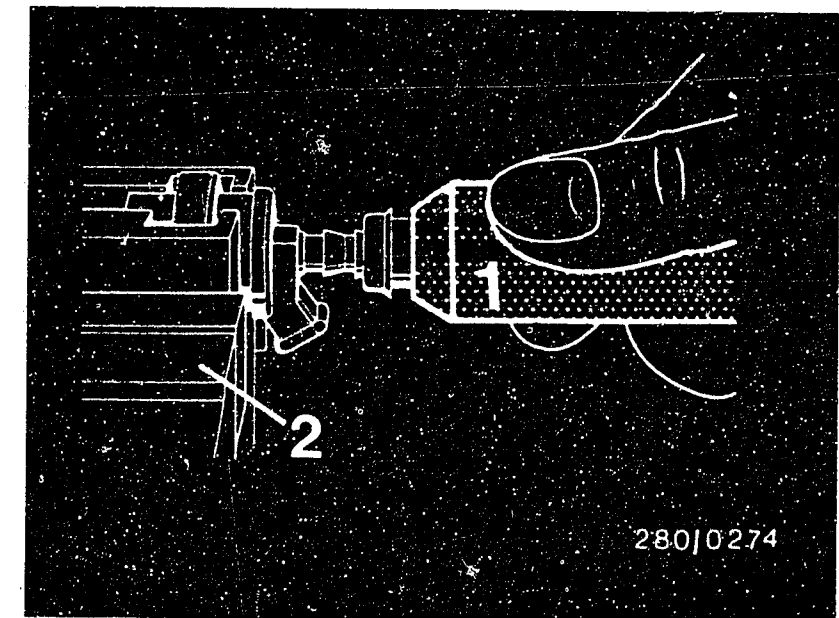
Important! All solenoid-operated injection valves must be installed without leaks. Tighten the hose clips on the solenoid-operated injection valves securely. (Fire hazard if there are leaks!)

Put on all air and vacuum hoses.  
Screw on the fastening screws for the fuel distributor pipe.  
If the vacuum hoses have been taken out, put them back on.

Check all fuel and air hose connections once again for a tight fit. Start the engine and check to see that no unmetered air is being drawn in.

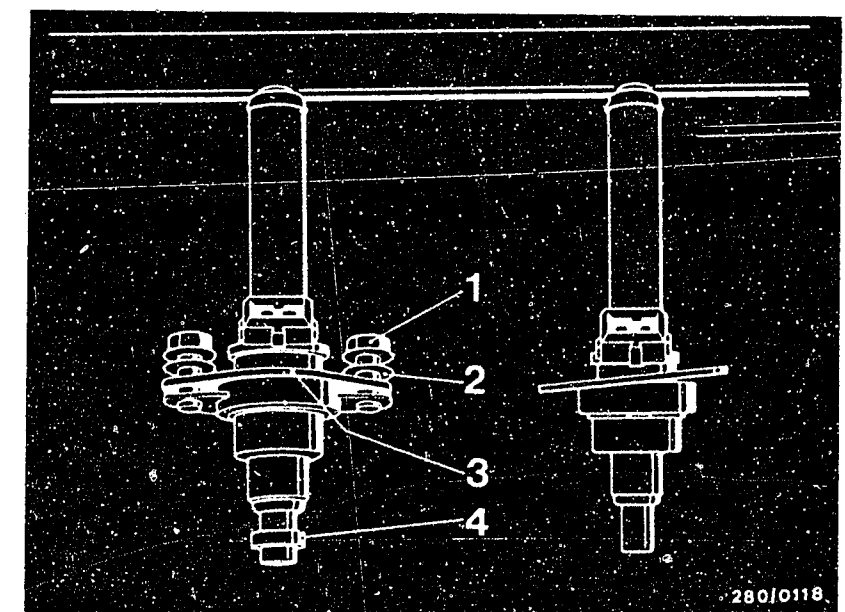
yes

Continued on K9/K10



- 1 = Assembly mandrel  
(1 687 931 003)
- 2 = Clamping fixture  
(1 688 120 093)

- 1 = Hex bolt
- 2 = Plain washer
- 3 = Bracket
- 4 = Rubber ring



**K7**

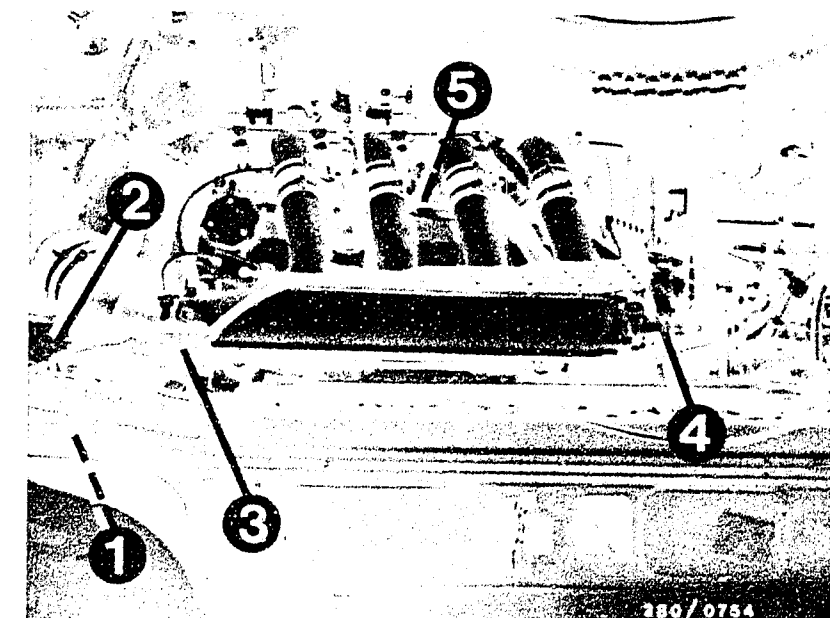
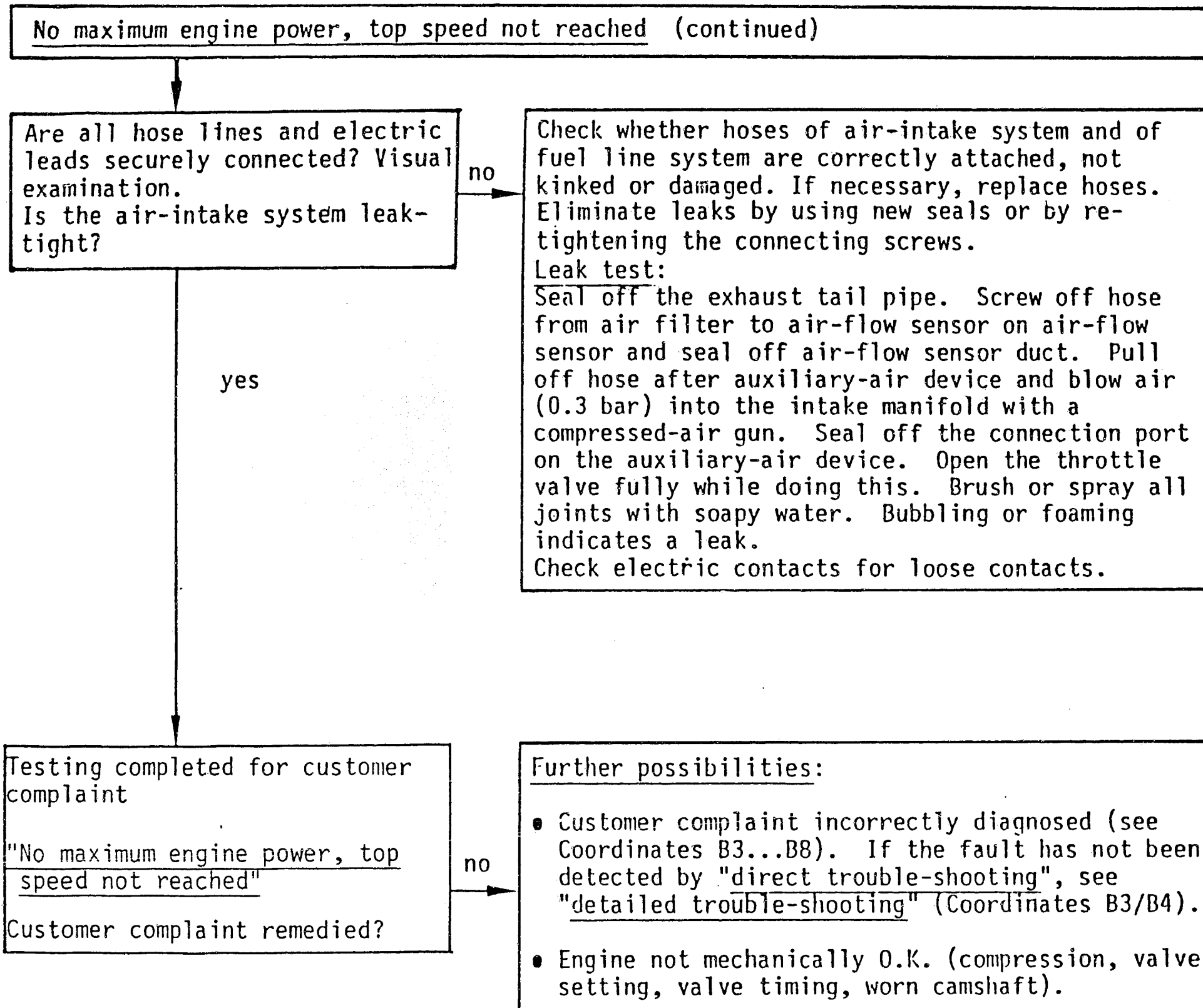
No maximum engine power  
Citroen CX GTI/Prestige/Pallas



**K8**

No maximum engine power  
Citroen CX GTI/Prestige/Pallas

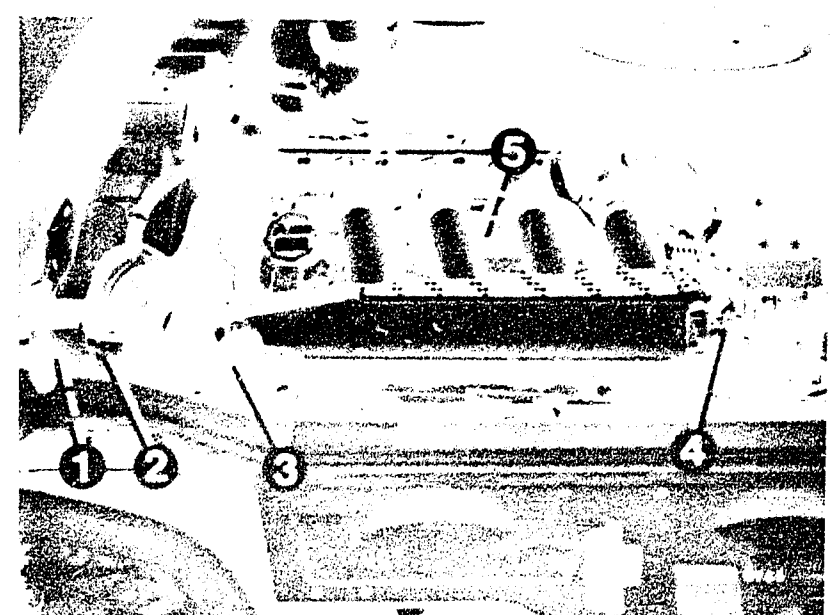




Up to 8.80 model

- 1 = Air filter
- 2 = Air-flow sensor
- 3 = Throttle-valve switch
- 4 = Start valve (blue plug)
- 5 = Auxiliary-air device

As of 9.80 model



K9

No maximum engine power  
Citroen CX GTI/Prestige/Pallas



K10

No maximum engine power  
Citroen CX GTI/Prestige/Pallas



## IDLE SPEED AND CO CONCENTRATION TOO LOW OR TOO HIGH

### Trouble-shooting program according to customer complaints

#### How to use the following trouble-shooting program

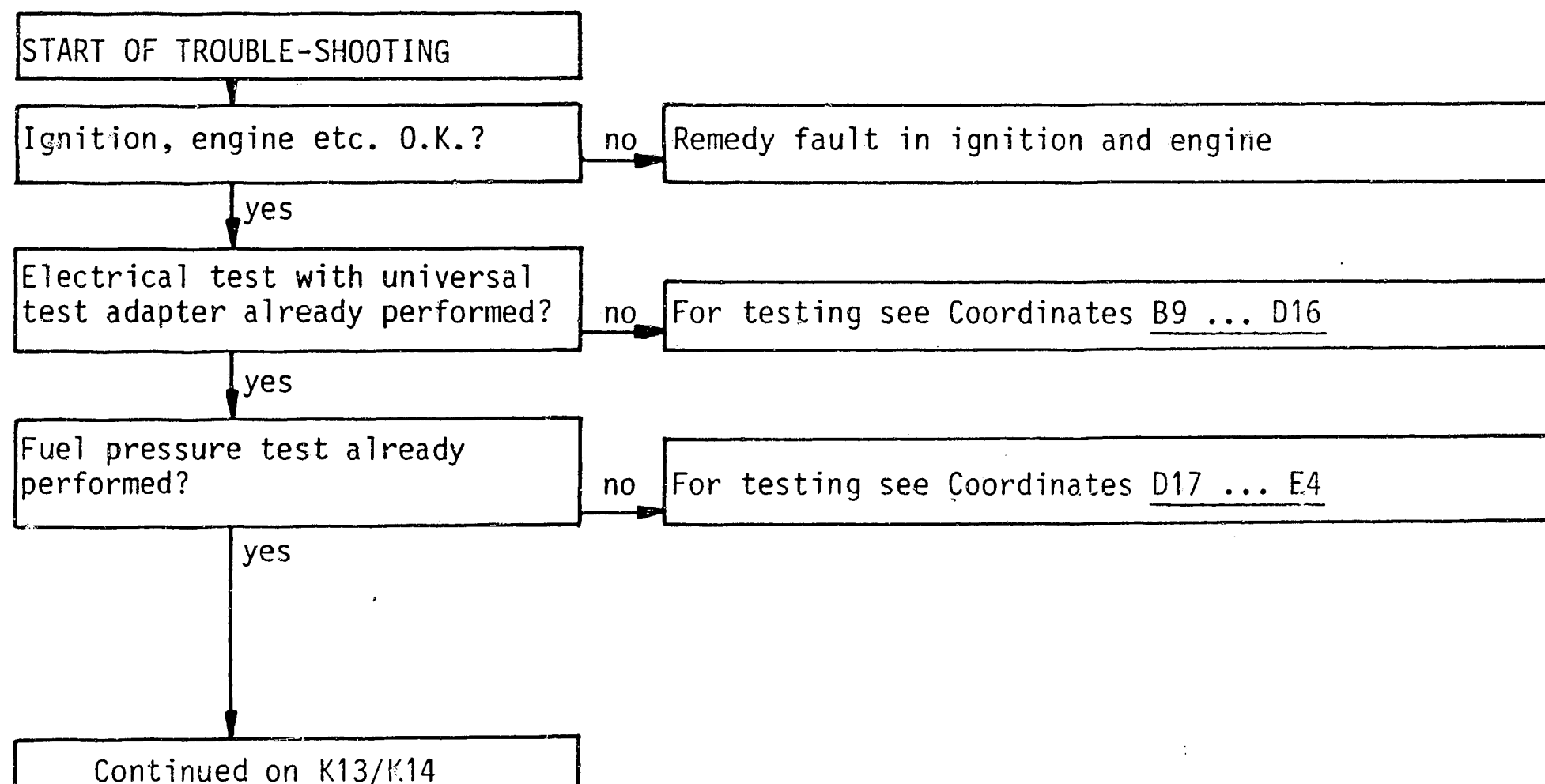
The program is divided into three rows of boxes:

- The left-hand row contains the questions on the tests.
- The middle row contains descriptions of the testing and adjustment operations on the components.
- The right-hand row contains the illustrations belonging to the text and explains the illustrations.

If the questions can be answered conclusively with "yes" without testing, proceed to the next question below.

If, on the other hand, the answer to the question is "no", and you suspect a fault, branch to the middle row of boxes and carry out the tests given there.

When you have finished testing continue trouble-shooting at the point at which you branched off.



**K11**

CO adjustment

Citroen CX GTI/Prestige/Pallas



**K12**

CO adjustment

Citroen CX GTI/Prestige/Pallas



Idle speed and CO concentration too low or too high (continued)

CO and idle speed correctly adjusted?

no

CO and idle adjustment

Exhaust-gas test with CO analyzer with engine at normal operating temperature and at idle speed

Idle speed

Manual transmission:  $850 \dots 900 \text{ min}^{-1}$

Automatic transmission  
(selector lever in position D and parking brake on)  $800 \dots 850 \text{ min}^{-1}$

CO adjustment:  $0.8 \dots 1.5 \text{ vol. \% CO}$

As of FD 248: CO adjusting screw with socket hex AF5.

If CO concentration too high, turn bypass screw (CO adjusting screw) in air-flow sensor half a turn in a counterclockwise direction. Check engine speed and CO concentration again. Carry out adjustments in several steps.

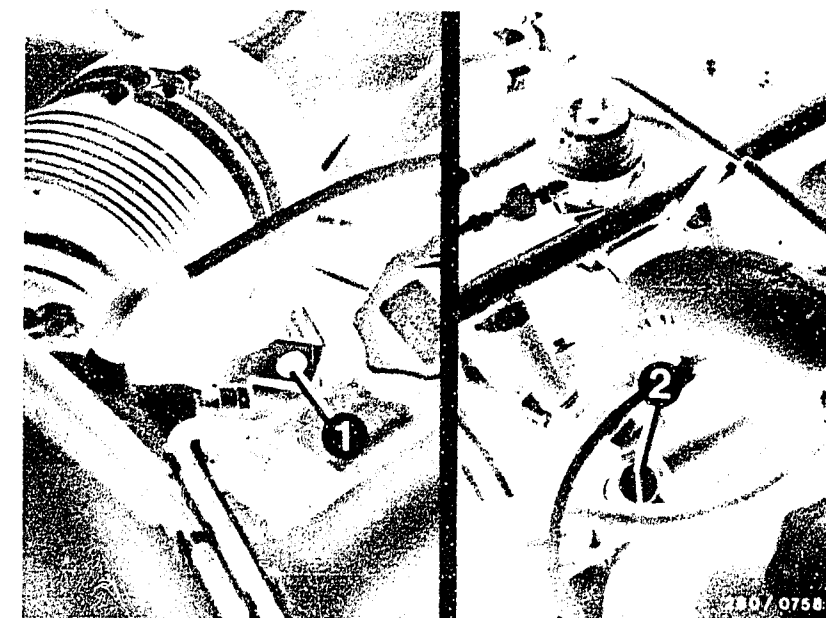
After adjusting, use new plugs.

yes

Can engine speed not be adjusted?

yes

Continued on K15/K16



1=CO adjusting screw  
2=Idle-speed-adjusting screw

**K13**

CO adjustment

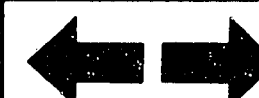
Citroen CX GTI/Prestige/Pallas



**K14**

CO adjustment

Citroen CX GTI/Prestige/Pallas





Idle speed and CO concentration too low or too high (continued)

Air-flow sensor O.K.?

no

The air-flow sensor is fastened to battery mounting with three screws.

Testing:

Unscrew the air hose from the air-flow sensor.

Open air-flow sensor flap by hand.

It must be possible to open the air-flow sensor flap with uniform ease from its fully closed position to its fully open position. When released, the flap must close completely by itself. When the air-flow sensor flap is opened it must not catch at any point. Watch for any indications of abrasion or rubbing. Clean air-flow sensor if the inside is very dirty and rub out with a lint-free cloth. If there are any signs of abrasion or rubbing, replace the air-flow sensor.

Connect ohmmeter to term. 7 and term. 8 of air-flow sensor.

Measure resistance.

Deflect air-flow sensor flap.

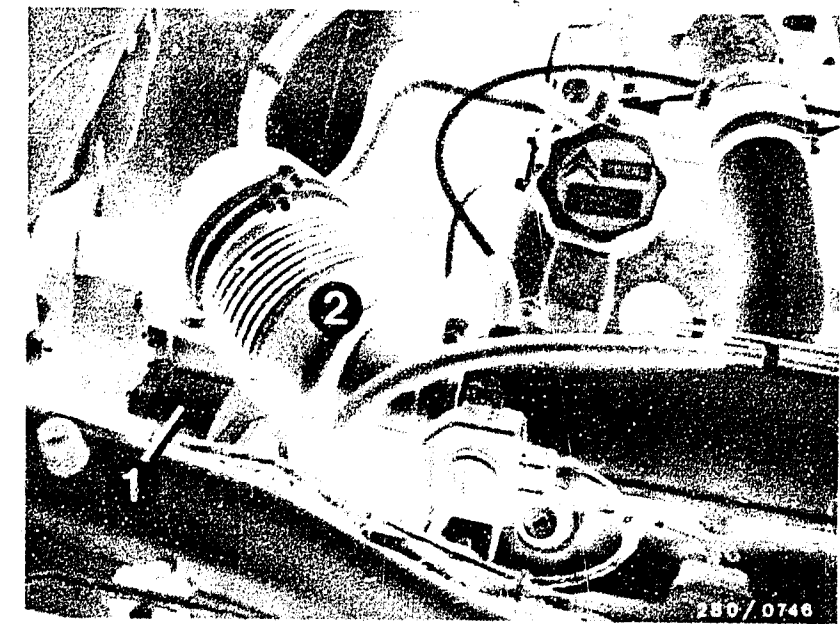
Test specification: 100 ... 500  $\Omega$

Caution!

After testing is completed, refit the hose between air filter and air-flow sensor.

yes

Continued on K17/K18



1 = Air-flow sensor

2 = Air hose between air-flow sensor and intake manifold

**K15**

CO adjustment

Citroen CX GTI/Prestige/Pallas



**K16**

CO adjustment

Citroen CX GTI/Prestige/Pallas



CO adjustment at idle too low or too high (continued)

CO concentration below tolerance?

max. 1,5 % by vol. CO

Temperature sensors O.K.?  
Start valve leak-tight?

no

Testing the temperature sensor:

Using ohmmeter, make direct resistance measurement at temperature sensor II (engine). Resistance measurement at term. 13 and term. 49 (ground):

1. Ambient temperature (approx. + 15°C...+30°C) 1.30 ... 3.6 kΩ
2. Engine at normal op. temp. (approx. +80°C): 250 ... 390 Ω

If incorrect, check for open circuit or short circuit in following leads using ohmmeter:

- Multiple plug term. 13 to temperature sensor II term. 13.
- Temperature sensor II term. 49 to central ground (lead 49).
- Check all contacts in the plug-in connections.

Testing the start valve:

Testing the start valve for leaks:

1. When installed

Pinch off the fuel delivery line to the start valve. If engine then runs smoothly, replace start valve.

2. When removed

Remove start valve (Caution! Fire Hazard!).

Fuel line and electric lead remain connected (place collector vessel under the start valve). Build up fuel pressure (unscrew the air hose from the air-flow sensor. Ignition "ON" and deflect the air-flow sensor flap).

yes

Continued on K21/K22

Continued on K19/K20



Arrow = Temperature sensor II (engine) (white plug)

Arrow = Start valve



**K17**

CO adjustment

Citroen CX GTI/Prestige/Pallas



**K18**

CO adjustment

Citroen CX GTI/Prestige/Pallas



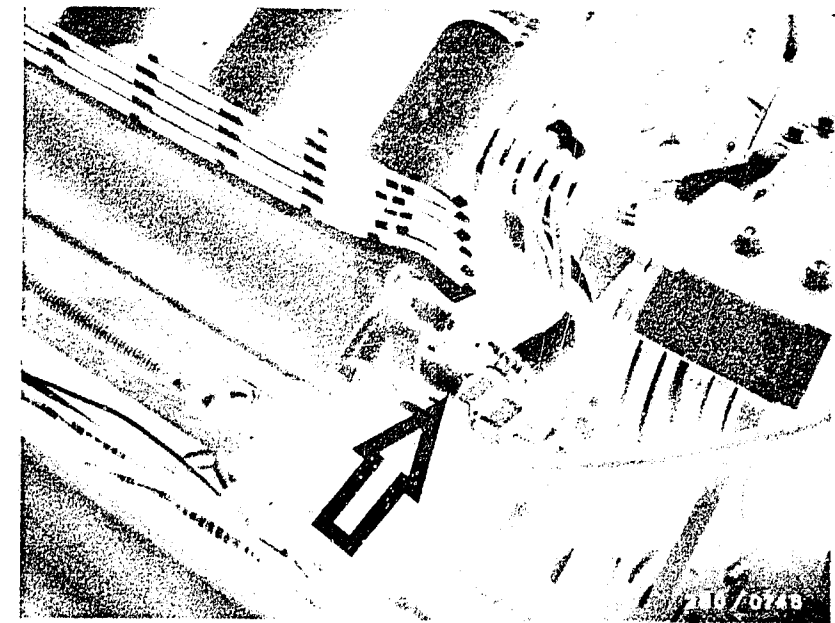
CO adjustment at idle too low or too high (continued)

Test specification:

Within one minute max. 1 drop may form at the mouth of the valve.

N.B.!

Once the testing has been completed, the air hose must be put back on the air-flow sensor. Check the connection for leaks and check the ground connection (ground lead) on the air-flow sensor.



Arrow = Start valve

yes

Continued on K21/K22

**K19**

CO adjustment  
Citroen CX GTI/Prestige/Pallas



**K20**

CO adjustment  
Citroen CX GTI/Prestige/Pallas



CO adjustment at idle too low or too high (continued)

CO concentration above  
0.8 % by vol. CO ?

Air-intake system leak-  
tight?

no

Checking for leaks:

Seal off exhaust tail pipe. Screw off hose from air filter to air-flow sensor and seal off air-flow sensor duct. Remove hose after auxiliary-air device and blow air (0.3 bar) into the intake manifold with a compressed-air gun. Seal off connection port on auxiliary-air device. Open throttle valve fully while doing this. Brush or spray all joints with soapy water. Bubbling or foaming indicates a leak.

yes

Testing completed for  
customer complaint

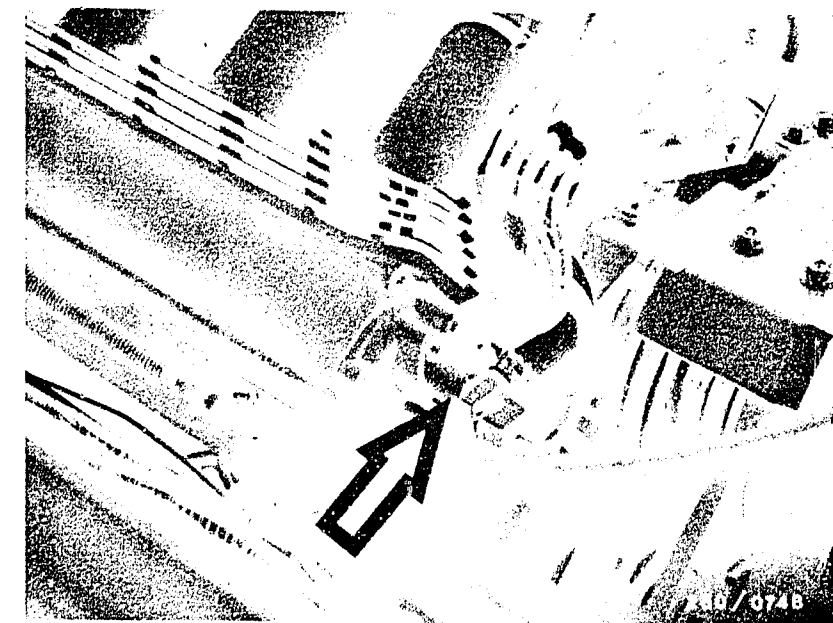
"CO adjustment at idle too low  
or too high"

Customer complaint remedied?

no

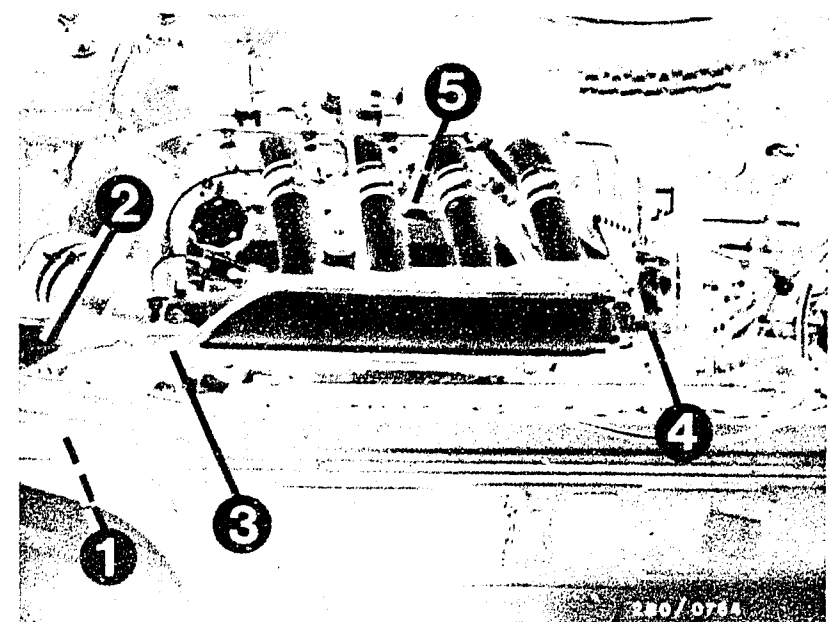
Further possibilities

- Customer complaint incorrectly diagnosed. (See coordinates B3...B8)  
If the fault has not been detected by "direct trouble-shooting", see "detailed trouble-shooting" (Coordinates B3/B4).
- Engine not mechanically O.K. (Compression, valve setting, valve timing, worn camshaft).



Arrow = Start valve

- 1 = Air filter
- 2 = Air-flow sensor
- 3 = Throttle-valve switch
- 4 = Start valve (blue plug)
- 5 = Auxiliary-air device



**K21**

CO adjustment

Citroen CX GTI/Prestige/Pallas



**K22**

CO adjustment

Citroen CX GTI/Prestige/Pallas



# After-sales Service

## Motor Vehicle Service Information

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### UNIVERSAL TEST ADAPTER

VDT-I-Gen. 1001 En

1.1982

#### 1. Application

The multiplicity of different fuel-injection and ignition systems at present available on the market, as well as the advances in development which can be expected in the future, demand a new testing concept. In order to maintain the outlay for test equipment, and hence the costs, at a reasonable limit we have developed the universal test adapter.

The following systems can be tested using a test-adapter universal unit together with adapter leads suited to the system in question:

##### 1.1 Systems which are already being fitted as series:

- L-Jetronic (1st generation)
- LE-Jetronic (2nd-generation L-Jetronic)
- Motronic (with the new connector designation, refer to the vehicle-specific instructions!)

##### 1.2 Systems whose introduction is planned:

- Motronic with gearbox control
- KE-Jetronic
- Mono-Jetronic
- Electronic ignition system with ignition map (EZF)

#### 2. Delivery dates and Part Numbers

Available as from 2.1982.

##### 2.1 Universal test adapter (basic unit)

Part Number: 0 684 101 801

Designation: ETT 018.01

##### 2.2 System adapter lead for LE-Jetronic (2nd generation L-Jetronic)

Part Number 1 684 463 123

First application: For BMW 2.5/2.8 l engines as from 9.1981, and for Opel 2.0 l engines (Manta/Rekord) as from 9.1981.

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**N1**

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Citroen CX GTI/Prestige/Pallas



### 2.3 System adapter lead for Motronic with new connector assignment.

(Refer to the vehicle-related instructions!)

Part Number : 1 684 463 124

First application: Porsche 944 as from series production, BMW as from about 3.1982 (Europe)

### 2.4 System adapter lead for L-Jetronic (in preparation)

Further system adapter leads will be made available along with the introduction of the new systems as mentioned above.

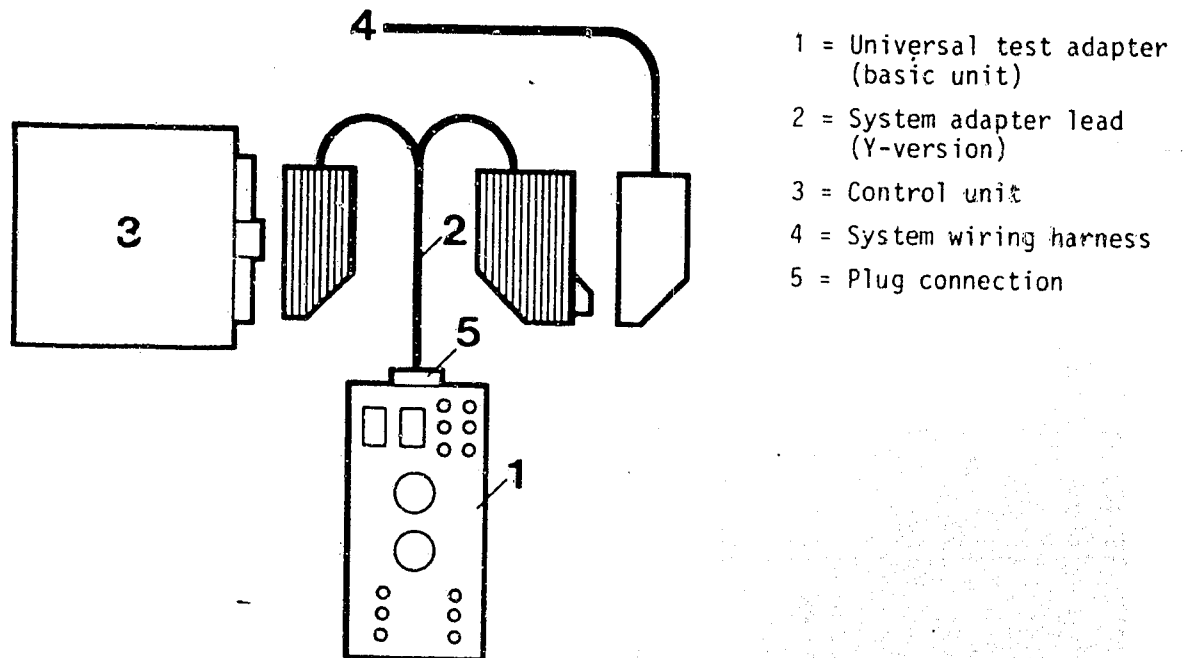
### 3. Testing procedure

The systems and the components are tested for voltage and resistance values as well as for correct functioning. Evaluation is by means of a multimeter and the Motortester which are connected into the universal test adapter.

Depending upon the complexity of the system, interchangeable adapter lead model 1 or model 2 is provided:

#### 3.1 Adapter lead for peripheral and function testing (Model 1)

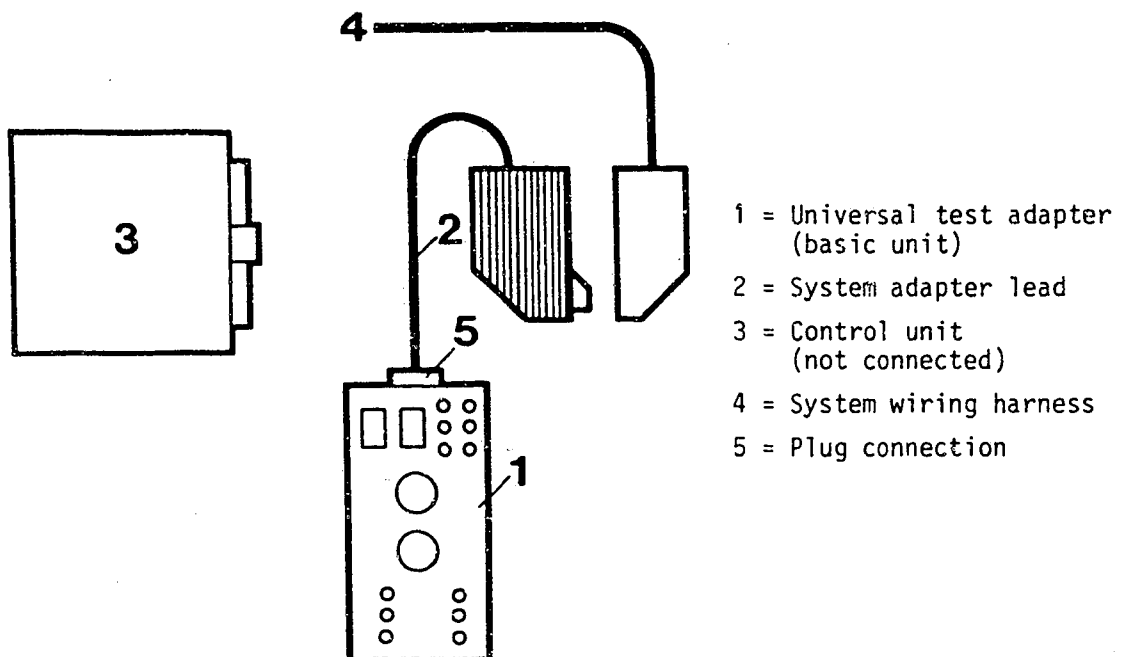
The universal test adapter together with the system adapter lead is to be connected to the system wiring harness and to the control unit (e.g. Motronic).  
To be tested: Wiring harness with components and control unit.



### 3.2 Adapter lead for peripheral testing (Model 2)

The universal test adapter with system adapter lead, is only to be connected to the system wiring harness (e.g. LE-Jetronic (2nd-generation L-Jetronic)).

To be tested: Wiring harness with components (without control unit).



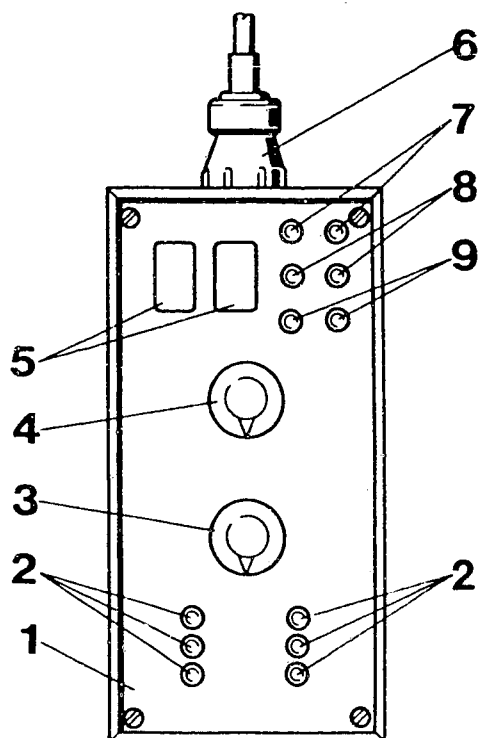
### 4. Construction of the universal test adapters

The universal test adapter is fitted with 2 program switches footlauge and resistance measurement. The measured values are displayed on the multimeter connected to the universal test adapter. For reasons of safety, the voltage and resistance sockets are separated. In order to measure signals (e.g. injection pulses, ignition pulses), it is necessary to connect a Motortester to the measuring cavities (special input).

When carrying out functional tests with the control unit connected, selected push-buttons are pressed in a number of test-program steps in order to simulate a variety of different engine operating conditions the influence of which is evaluated using the Motortester.







- 1 = Universal test adapter (basic unit)
- 2 = Keyboard for simulation of various conditions e.g. engine temperature, throttle position etc.
- 3 = Program switch "Ohm" for resistance measurement
- 4 = Program switch "Volt" for voltage measurement
- 5 = Measurement "cavities" (for the special input from the Motortester)
- 6 = 63-pole plug-in connection for connecting the system adapter lead
- 7 = Measurement sockets (voltage measurement with a multimeter or with the Motortester)
- 8 = Measurement sockets (resistance measurement with the multimeter)
- 9 = Sockets for special functions (not yet allocated)

Notes:

1. The Motronic test adapter (0 684 101 800, ETT 018.00) will continue to be used for Motronic-equipped BMW vehicles (with old connector assignment) up to about year of manufacture 3.1982 (refer to vehicle-specific instructions).
2. Details on the operation of the universal test adapter, and the test specs, are to be found in the vehicle-specific after-sales service instructions.

3. Caution! Change of Part Number:

On the SIS-microfiches OPE-00/J22 (Coordinates A14 and A17) the new Part Numbers are as follows:

Universal test adapter: 0 684 101 801

Adapter lead : 1 684 463 123



# After-sales Service

## Technical Bulletin

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28

Changing of hose on electronically controlled fuel injection valves, manifold-pressure sensitive (EFI-D) and air-flow sensitive (EFI-L)

VDT-I-280/100 B  
Ed. 1 8.1975  
Translation of German edition of 4.7.1975

When injection valves with double sealing edges were introduced in February, 1974, the firms of Daimler-Benz, Saab and Volvo included the changing of the hose in their after-sales service program.

Instructions for changing the hoses for use in the Bosch after-sales service workshops have been produced.

Due to the different conditions to which vehicles are subject in service (to be specific the differences in temperature), there is a wide variation in aging of the hoses. For reasons of safety testing of the hoses must therefore be most carefully carried out. It is not possible to state the life of the fuel hoses for any vehicles, neither as a period of time nor according to the distance travelled.

As soon as the condition of the hoses becomes unsatisfactory, they must be replaced (e.g., when there are signs of cracking, embrittled or soft spots, etc.).

For satisfactory removal and fitting, tool 1 688 120 093 must be used.

For the different types of injection valve the following parts sets are supplied.

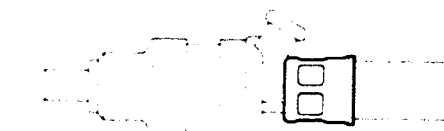
1. Parts set 1 287 010 700 for valves with crimped hose termination sleeve.
2. Parts set 1 287 010 701 for valves with short hose termination sleeve and double sealing edges.

### Instructions for fitting

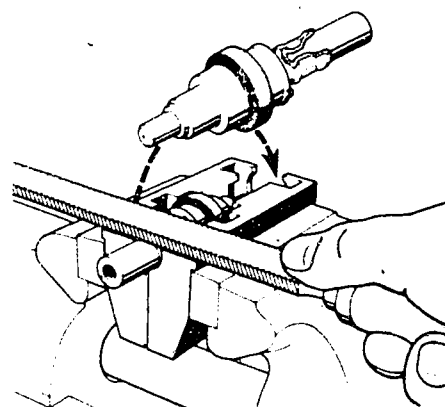
1. Parts set 1 287 010 700

### Removal of hose

1. It is not necessary to remove the fastening parts on the injection valve (rubber ring, gland)
2. Place injection valve in clamping fixture 1 688 120 093 and tighten up in vise.
3. File to open hose termination sleeve (use flat file, smooth narrow side against the valve).
4. Put the injection valve in the opposite side of the clamping fixture and tighten up in vise.
5. Cut to open the hose termination sleeve with side-cutting pliers and withdraw hose.



Connection made by crimped hose termination sleeve



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N5

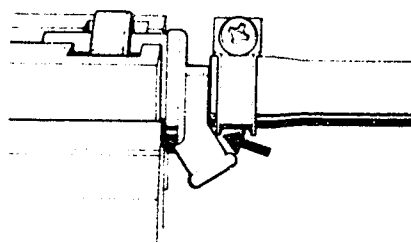
Technical Bulletins

Citroen CX GTI/Prestige/Pallas



### Fitting of hose

1. Clean the outside of the tailpiece.
2. Push new hose onto tailpiece up to the stop.
3. Push on hose clamp up to the electrical connection and tighten up so that 2 mm of thread still remain visible in the centre.



Attention. Do not tighten the hose clamp up to stop. Once hoses have been detached they must not be used again.

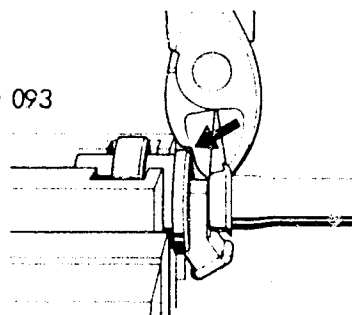
### 2. Parts set 1 287 010 701

#### Removal of hose

1. It is not necessary to remove the fastening parts on the injection valve (rubber ring, gland)
2. Place injection valve in clamping fixture 1 688 120 093 and tighten up in vise.
3. Cut to release hose termination sleeve with side-cutting pliers (modified) and remove.
4. Burn through the hose with a soldering gun or soldering iron in the longitudinal direction and remove.

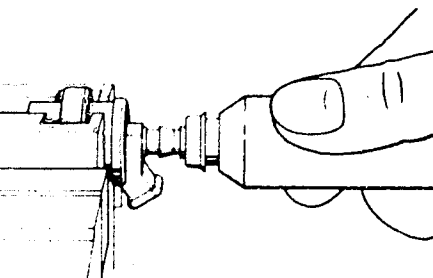
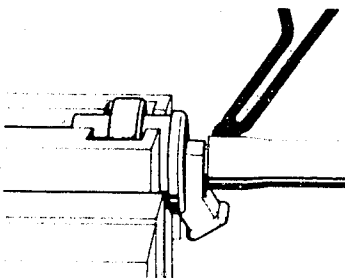


Connection made when valves with double sealing edges (short hose termination sleeve) are used



### Fitting of hose

1. Clean the outside of the tailpiece.
2. Apply fuel or testing oil to the surface of the new fuel hose.
3. Press hose and hose termination sleeve by hand onto the tailpiece up to the stop using pressing tool 1 687 931 003. The hose termination sleeve must then be tight.



Attention. Do not use hose clamp on tailpiece of injection valve.

In case of inquiry, please contact your authorized representative.

ROBERT BOSCH GMBH  
Geschäftsbereich KH  
Kundendienstschule



# After-sales Service

## Technical Bulletin

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### Packaging of goods under warranty

**28**

D- and L-Jetronic (EFI-D and EFI-L)

VDT-I-280/101 B  
10. 1976

All components or assemblies of the D- and L-Jetronic which are dispatched under warranty must be correctly and carefully packaged so that no further damage or impairments occur during transit, since these would not be covered by warranty.

Any fuel remnants must be removed from those D- and L-Jetronic assemblies intended for dispatch, so as to eliminate any danger of fire during transit.

The intake openings and outlets of the assemblies must be sealed off with caps or plugs. As new products were fitted, the caps or plugs from these may be used.

In addition, the assemblies are packed in tightly packed, well-sealed plastic sleeves.

If components arrive damaged due to incorrect packaging or do not comply with these instructions, they can be returned and the warranty claim rejected.

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# After-sales Service

## Technical Bulletin

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CAR ALARM II, RETROFITTING  
in vehicles equipped with L-Jetronic

VDT-I-280/103 En  
7.1981  
Supersedes Ed. 9.1980

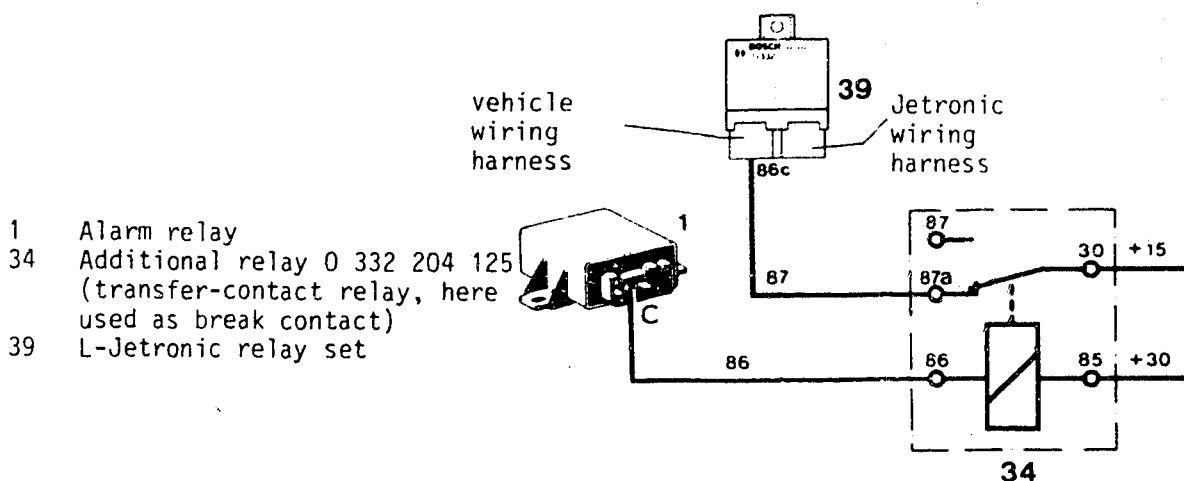
In cases where Car Alarm II (0 335 411 901) is retrofitted in vehicles equipped with L-Jetronic, the terminal 1 of the ignition coil must NOT be connected to terminal "C" of the alarm relay. When the Car Alarm is switched on, terminal "C" of alarm relay is switched internally to vehicle ground. This would mean that when attempts are made to start the vehicle with the alarm switched on, the ignition coil and the L-Jetronic control unit would be destroyed. This also means though, that full protection against theft is no longer possible as would normally be the case with the ignition switched off and with the alarm installation primed.

A circuit has now been developed which ensures complete theft protection for L-Jetronic vehicles as well.

### Description of the circuit

Open-circuit the line "15" leading to terminal "86c" of the relay set using an additional relay (34) 0 332 204 125. This relay ensures that when the alarm installation is primed, the supply voltage to the control unit is switched off and hence the control unit no longer functions.

The additional relay (34) 0 332 204 125 is controlled by terminal "C" of the alarm relay (see circuit diagram).



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Citroen CT GTI/Prestige/Pallas



# After-sales Service

## Technical Bulletin

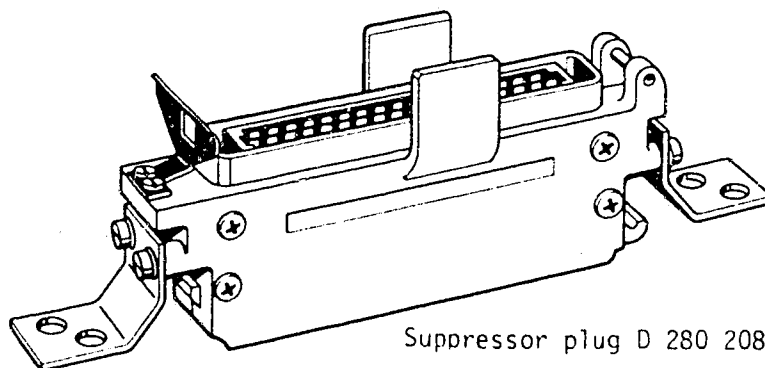
Only for use within the Bosch organization. Not to be communicated to any third party.

PERMANENTLY INSTALLED AND PORTABLE TRANSMITTER  
INSTALLATIONS FITTED IN VEHICLES EQUIPPED WITH  
L-JETRONIC

VDT-I-280/106 En  
4.1981

If, in vehicles equipped with L-Jetronic and in which transmitter installations are operated, whether permanently installed or removable and portable, malfunctions occur whilst the vehicle is being driven (the engine shakes or stops etc.), the following measures can be taken to remedy these faults:

- The hinges for the engine hood and the luggage-compartment lid are to be bridged with a flexible copper braided grounding strip (efficient grounding!).
- The antenna base is to be connected to the vehicle chassis using a copper grounding strip to ensure clean, 100% connection.
- Locate the transmitter and its antenna as far away as possible from the L-Jetronic control unit.
- Tune the transmitter to the antenna in order to achieve the minimum reflection coefficient.
- The parallel routing of the cables for the transmitter power supply and the antenna with the L-Jetronic wiring harness is to be avoided (danger of cross-coupling and cross-talk).



Suppressor plug D 280 208 091

If the disturbances and complaints continue even though the above measures have been taken, then the degree of suppression can be improved by incorporating the suppression plug D 280 208 091 between the wiring-harness plug and the L-Jetronic control unit.

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Ordering

REGE/AV is to order direct from KH/VKD2.

Price

Available upon request.





# After-sales Service

## Technical Bulletin

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DETERMINATION OF THE TEMPERATURE VALUES  
GIVEN IN L-JETRONIC MANUALS

VDT-0-235/108 En  
5.1982

We have recently been asked with increasing regularity how accurately the engine temperature must be measured when trouble-shooting on the vehicle.

So far in its L-Jetronic manuals KH/VSK has given three or four different temperatures for testing the temperature sensor:

-10 °C, +20 °C, +40 °C and +80 °C,

and two ranges for the thermo-time switch e.g. 35 °C 8 sec.

below +30 °C and above +40 °C.

Since the temperature range need not be subject to such close tolerances, we propose in future the following more appropriate definition:

- Ambient temperature (approx. +15 °C to +30 °C)
- Engine at normal operating temperature (approx. +80 °C).

Please direct questions and comments concerning the contents to our authorized representative in your country.

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**N11**

Technical Bulletins

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# After-sales Service

## Technical Bulletin

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### PLUG-AND-SOCKET CONNECTORS FOR JETRONIC COMPONENTS

Parts sets

VDT-I-280/111 En

11.1982

(Replaces Ed. 7.82)

Parts sets are available for replacement Jetronic plug-and-socket connectors. The parts sets comprise:

- Connector housing
- Protective cap (rubber sleeve)
- Contact springs

These parts sets are listed on microfiche EE...\*.

\* See microfiche EE00 under 0 280 ..

- Plug, black, 2-pin, parts set 1 287 013 002 cable connector in conjunction with socket, 2-pin
- Socket, black, 2-pin, parts set 1 287 013 001 for e.g.:

Temperature sensor	0 280 130 0..
Auxiliary-air device	0 280 140 ..
Thermo-time switch	0 280 130 2..
Start valve	0 280 170 ..
Warm-up regulator	0 438 140 ..

- Socket, grey, 2-pin, parts set 1 287 013 003 for:

Solenoid-operated injection valve 0 280 150 ..

- Socket, black, 3-pin, parts set 1 237 000 039 for:

Throttle-valve switch 0 280 120 ..

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**N12**

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- Socket, black, 5-pin, parts set 1 237 013 066 for  
Air-flow sensor 0 280 20. ... (LE-Jetronic)
- Socket, black, 6-pin, parts set 1 287 013 004 for  
Air-flow sensor 0 280 200 ...
- Socket, black, 7-pin, parts set 1 287 013 005 for  
Air-flow sensor 0 280 20. ...  
Air-flow sensor 0 280 211 ...

The contact springs (minitimer) can also be supplied separately under Part No. 1 284 477 026.

The connector housings are only available in the stated colours.

Please direct questions and comments concerning the contents to our authorized representative in your country.



## TABLE OF CONTENTS

When direct trouble-shooting a specific L-Jetronic component, it is absolutely essential to look up the respective test step according to the customer complaint.

<u>Section</u>	<u>Coordinates</u>
Structure of microfiche .....	A 1
Rapid diagnosis chart for universal test adapter .....	A 2 - A 6
Test specifications .....	A 7 - A 8
Electrical terminal diagram .....	A 9 - A 10
Diagram of air hoses .....	A 11 - A 12
Diagram of fuel lines .....	A 13 - A 14
Test equipment and tools .....	A 15 - A 17
Installation position of the components	A 18 - A 22
General information .....	A 23
 Trouble-shooting .....	 B 1 - B 8
Detailed trouble-shooting .....	B 3 - B 4
Direct trouble-shooting .....	B 5 - B 8
 Test chart for universal test adapter ..	 B 9 - D 16
 Fuel pressure test (pressure regulator defective, relay set defective, pump not operating, pump contact not closing) .....	    D 17 - E 4



## Table of contents (continued)

<u>Section</u>	<u>Coordinates</u>
<u>Customer complaint:</u>	
<u>Starting motor operates, engine fails to start or starts only with great difficulty</u> .....	E 5 - E 22
Start valve .....	E 7 - E 12
Thermo-time switch .....	E 13 - E 14
Auxiliary-air device .....	E 15 - E 16
Temperature sensor .....	E 17 - E 18
Air-flow sensor .....	E 19 - E 20
Hose lines, electric lead connections, and test for leaks .....	E 21 - E 22
 <u>Customer complaint:</u>	
<u>Engine starts and then dies</u> .....	F 1 - F 14
Start valve (leaks) .....	F 3 - F 4
Auxiliary-air device .....	F 5 - F 6
Temperature sensor .....	F 7 - F 8
Air-flow sensor (pump contact does not close) .....	F 9 - F 10
Solenoid-operated air valve .....	F 11 - F 12
Hose lines, electric lead connections, and test for leaks .....	F 13 - F 14
 <u>Customer complaint:</u>	
<u>Uneven engine idle, speed (idle) and exhaust-gas adjustment</u> .....	F 15 - G 12
<u>Throttle valve adjustment</u> .....	F 17 - F 18
Solenoid-operated air valve .....	F 19 - F 20
CO and idle adjustment .....	F 21 - F 22
Thermo-time switch .....	F 23 - F 24
Start valve (leaks) .....	G 1 - G 2
Auxiliary air device .....	G 3 - G 4
Mech. test. of sol.-op. injection valve .....	G 5 - G 6
Air-flow sensor .....	G 57 - G 8
Hose lines, electric lead connections, and test for leaks .....	G 9 - G 10
CO and idle adjustment .....	G 11 - G 12



## Table of contents (continued)

<u>Section</u>	<u>Coordinates</u>
<u>Customer complaint:</u>	
<u>Poor throttle take-up</u> .....	G 13 - H 2
Throttle valve adjustment .....	G 15 - G 16
Auxiliary-air device .....	G 17 - G 18
Air-flow sensor .....	G 19 - G 22
Hose lines, electric lead connections, and test for leaks .....	G 23 - G 24
CO and idle adjustment .....	H 1 - H 2
<u>Customer complaint:</u>	
<u>Engine missing under all operating conditions</u> .....	H 3 - H 20
Plug connections .....	H 5 - H 6
Power supply .....	H 5 - H 6
Power peaks .....	H 5 - H 6
Solenoid-operated injection valve (interference) .....	H 7 - H 8
Air-flow sensor (pump contact, poten- tiometer test) .....	H 9 - H 12
CO adjustment .....	H 13 - H 14
Fuel delivery .....	H 15 - H 16
Control unit .....	H 17 - H 18
Sputtering on overrun .....	H 17 - H 20
<u>Customer complaint:</u>	
<u>Fuel consumption too high</u> .....	H 21 - J 16
Start valve (leaks) .....	H 23 - H 24
Temperature sensors .....	J 1 - J 2
Functional test of the solenoid-operated injection valve .....	J 3 - J 4
Mechanical test of the solenoid-operated injection valve .....	J 5 - J 6
Taking out and replacing the solenoid- operated injection valve .....	J 7 - J 12
Air-flow sensor .....	J 13 - J 14
CO and idle adjustment .....	J 15 - J 16



## Table of contents (continued)

### Section

### Coordinates

#### Customer complaint:

No maximum engine power, top speed

not reached ..... J 17 - K 10

Full load enrichment (throttle valve

switch) ..... J 19 - J 20

Throttle valve adjustment ..... J 21 - J 22

Fuel delivery ..... J 23 - J 24

Air-flow sensor ..... K 1 - K 2

Taking out and replacing the solenoid-

operated injection valves ..... K 3 - K 8

Hose lines, electric lead connections,

and test for leaks ..... K 9 - K 10

#### Customer complaint:

Idle speed and CO concentration too .... K 11 - K 14

low or too high

CO and idle adjustment ..... K 13 - K 14

Air-flow sensor ..... K 15 - K 16

Temperature sensor ..... K 17 - K 18

Start valve (leaks) ..... K 17 - K 20

Testing for leaks ..... K 21 - K 22

Motor Vehicle Service Information ..... N 1 - N 4

Technical Bulletins ..... N 5 - N 13





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